

**WOLVERINE GAS AND OIL COMPANY
OF UTAH, LLC**

Energy Exploration in Partnership with the Environment

May 2, 2008

Mr. Gil Hunt
Utah Division of Oil, Gas and Mining
P.O. Box 145801
Salt Lake City, Utah 84114-5801

Re: Application for Permit to Drill - Wolverine Gas and Oil Company of Utah, LLC
Providence Federal 24-2
SW/4 NW/4, Section 24, T20S, R1E, SLB&M
Sanpete County, Utah

Dear Mr. Hunt:

Wolverine Gas and Oil Company of Utah, LLC (Wolverine) hereby submits two copies of an *Application for Permit to Drill* (APD) for the referenced well. This well will be directionally drilled from the existing Wolverine Federal Arapien Valley 24-1 drilling pad and is planned as the first offset to that recently drilled exploratory well. Included with this APD is the following supplemental information:

- R649-3-2 Exception Plat;
- R649-3-11 Directional Drilling Application Plat;
- BLM Surface Use Plan of Operations;
- Survey Plat;
- Drilling Plan, BOPE Diagram, and Directional Plan;
- H2S Drilling Operations Plan;
- Location Layout and Pad Cross-Sections;
- Vicinity Map

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Mayfield Irrigation Company (Water Right Number 63-3234) will be the source for water during drilling and completion operations on this proposed well. The surface at the planned drill site is administered by the Bureau of Land Management.

The proposed well is located within 460' of a drilling unit boundary, so a request for exception to spacing (R649-3-2) is hereby requested for the well based restrictive topography and a desire to minimize surface impact. Wolverine is the only owner and operator within 460' of the proposed well location.

This letter and the accompanying plats are also intended to serve as an application for directionally drilling the well per R649-3-11. Wolverine is the owner of all oil and gas within 460 feet from all points along the intended wellbore for the well. Information relating to R649-3-11 is as follows:

Operator: Wolverine Gas and Oil Company of Utah, LLC

Address: One Riverfront Plaza
55 Campau, N.W.
Grand Rapids, MI 49503-2616

Well: Providence Federal 24-2

Field: Unnamed (but requested as "Providence")

Reservoir: Navajo

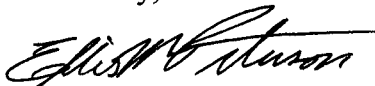
County: Sanpete

Reason: Inaccessible terrain and to minimize surface impact.

Please accept this letter as Wolverine's written request for confidential treatment of all information contained in and relating to this application and proposed well.

Thank you for consideration of this application. Please feel free to contact myself or Ed Higuera of this office if you have any questions or need additional information.

Sincerely,

A handwritten signature in black ink, appearing to read "Ellis M. Peterson". The signature is fluid and cursive, with the first name "Ellis" being more prominent.

Ellis M. Peterson
Senior Production Engineer
Wolverine Gas and Oil

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

APPLICATION FOR PERMIT TO DRILL OR REENTER

FORM APPROVED
OMB No. 1004-0137
Expires March 31, 2007

5. Lease Serial No.
UTU-80907

6. If Indian, Allottee or Tribe Name
N/A

7. If Unit or CA Agreement, Name and No.
Wolverine Federal Unit

8. Lease Name and Well No.
Providence Federal 24-2

9. API Well No.
43-039-30038

1a. Type of work: ☒ DRILL ☐ REENTER

1b. Type of Well: ☒ Oil Well ☐ Gas Well ☐ Other ☐ Single Zone ☐ Multiple Zone

2. Name of Operator
Wolverine Gas & Oil Company of Utah, LLC

3a. Address **55 Campau NW
Grand Rapids, MI 49503-2616**

3b. Phone No. (include area code)
616-458-1150

10. Field and Pool, or Exploratory
Unnamed, Navajo

4. Location of Well (Report location clearly and in accordance with any State requirements.)*

At surface **2318' FNL 539' FWL, SW/4 NW/4**

At proposed prod. zone **2100' FSL, 1650' FWL, NE/4 SW/4**

11. Sec., T. R. M. or Blk. and Survey or Area
Section 24, T20S, R1E, SLB&M

14. Distance in miles and direction from nearest town or post office*
4.8 miles southwest of Mayfield, Utah

12. County or Parish
Sanpete

13. State
UT

15. Distance from proposed*
location to nearest
property or lease line, ft.
(Also to nearest drig. unit line, if any) **2100**

16. No. of acres in lease
1040

17. Spacing Unit dedicated to this well
40 acres

18. Distance from proposed location*
to nearest well, drilling, completed,
applied for, on this lease, ft. **1101**

19. Proposed Depth
13,580' (13,400' TVD)

20. BLM/BIA Bond No. on file
BLM WY3329

21. Elevations (Show whether DF, KDB, RT, GL, etc.)
5554' GR

22. Approximate date work will start*
07/01/2008

23. Estimated duration
120 days

24. Attachments

The following, completed in accordance with the requirements of Onshore Oil and Gas Order No. 1, must be attached to this form:

1. Well plat certified by a registered surveyor.

2. A Drilling Plan.

3. A Surface Use Plan (if the location is on National Forest System Lands, the
SUPO must be filed with the appropriate Forest Service Office).

4. Bond to cover the operations unless covered by an existing bond on file (see
Item 20 above).

5. Operator certification

6. Such other site specific information and/or plans as may be required by the
BLM.

25. Signature

Edward A. Higuera

Name (Printed/Typed)

Edward A. Higuera

Date

05/01/2008

Title

Manager - Development

Approved by (Signature)

Bradley G. Hill

Name (Printed/Typed)

BRADLEY G. HILL

Date

06-24-08

Title

Office **ENVIRONMENTAL MANAGER**

Application approval does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.

Conditions of approval, if any, are attached.

Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

*(Instructions on page 2)

Surf

Federal Approval of this
Action is Necessary

BHL

434452X

434784X

4323042Y

4322741Y

39.055877

39.053188

-111.757550

-111.753656

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PROJECT
Wolverine Gas & Oil Company of Utah, L.L.C.

LEGEND

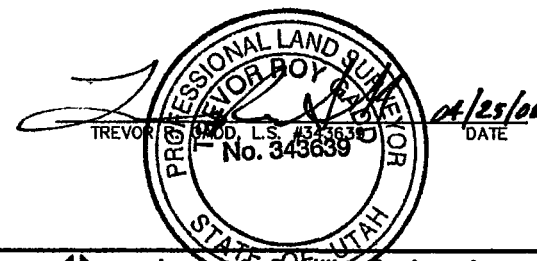
-  = SECTION CORNERS LOCATED
 = QUARTER SECTION CORNERS LOCATED
 = PROPOSED WELL HEAD

BASIS OF ELEVATION

A horizontal scale bar with alternating black and white segments. Above the bar, the markings '1000'', '500'', and '0'' are present. Below the bar, the word 'SCALE' is centered.

CERTIFICATE

THIS IS TO CERTIFY THAT THIS PLAT WAS PREPARED FROM
FIELD NOTES OF ACTUAL SURVEYS MADE BY ME OR UNDER
MY SUPERVISION, AND THAT THE SAME ARE TRUE AND
CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF.



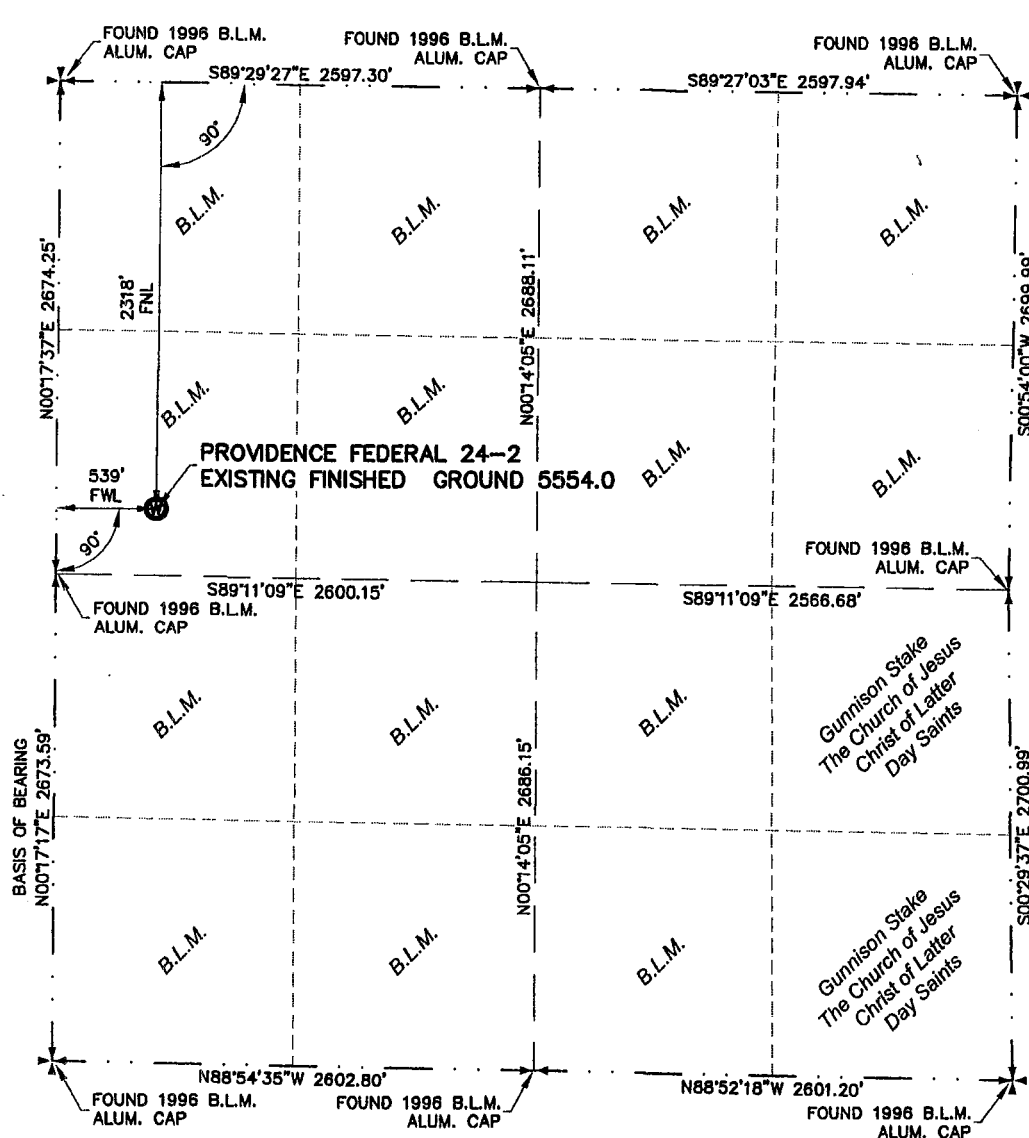
Jones & DeMille Engineering
1535 South 100 West - Richfield, Utah 84701
Phone (435) 896-8266
Fax (435) 896-8268
www.jonesanddemille.com

Well Location Plat for

Wolverine Gas & Oil Company of Utah, L.L.C.

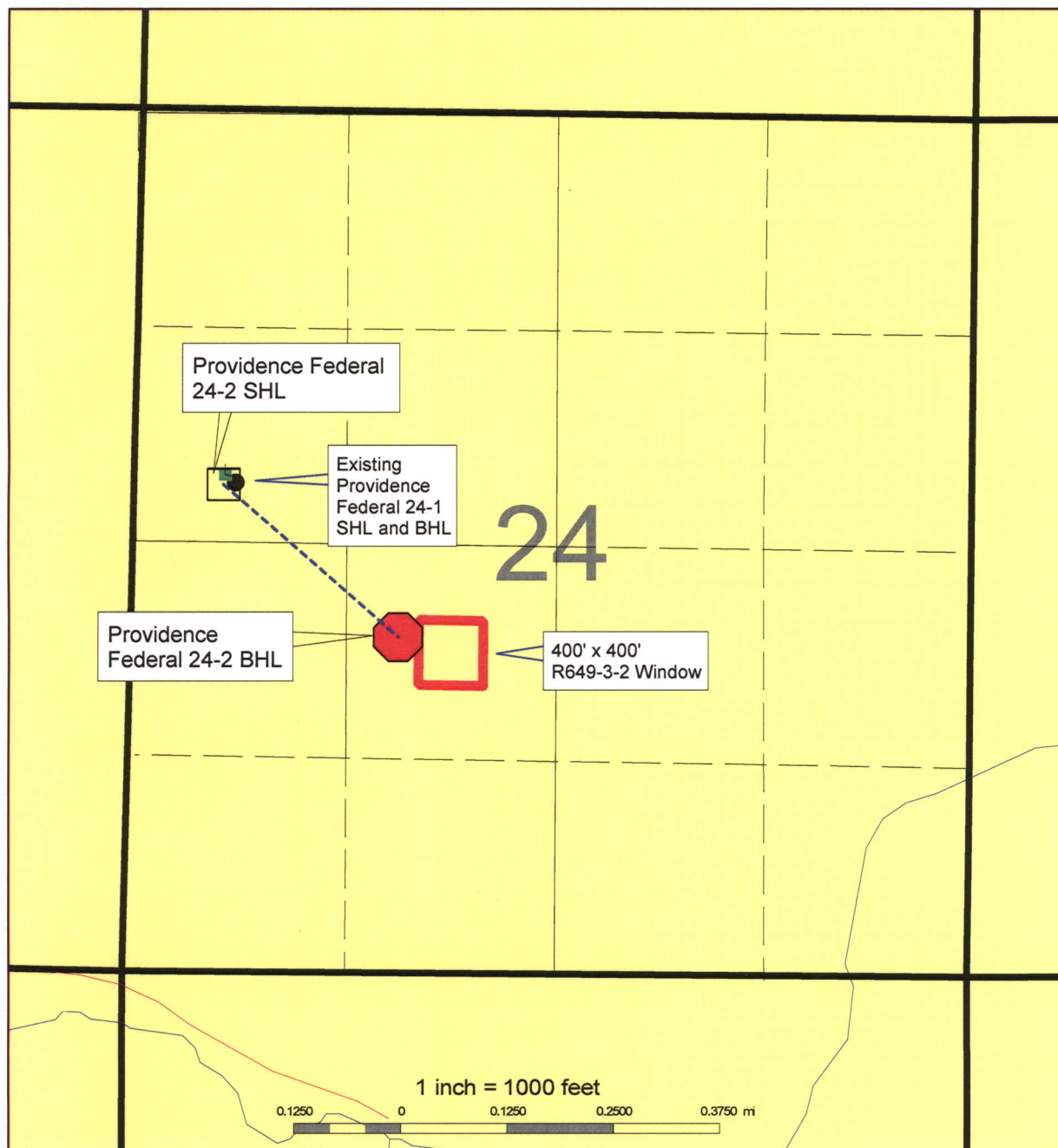
DESIGNED -	SURVEYED T.W.G.	CHECKED T.R.G.	DRAWN T.R.G.	PROJECT NO. 0508-124	SHEET NO. 1
DATE 04/08/08		DWG. NAME WELL LOC 242	SCALE 1" = 1000'		

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BASIS OF BEARINGS

BASIS OF BEARING USED WAS N00°17'17"E BETWEEN THE SOUTHWEST CORNER AND THE WEST QUARTER CORNER OF SECTION 24, T.20 S., R.1 E., S.L.B. & M.
LATITUDE = 39°03'21.4856" (39.055968222) NAD 83
LONGITUDE = -111°45'29.3358" (-111.758148778) NAD 83




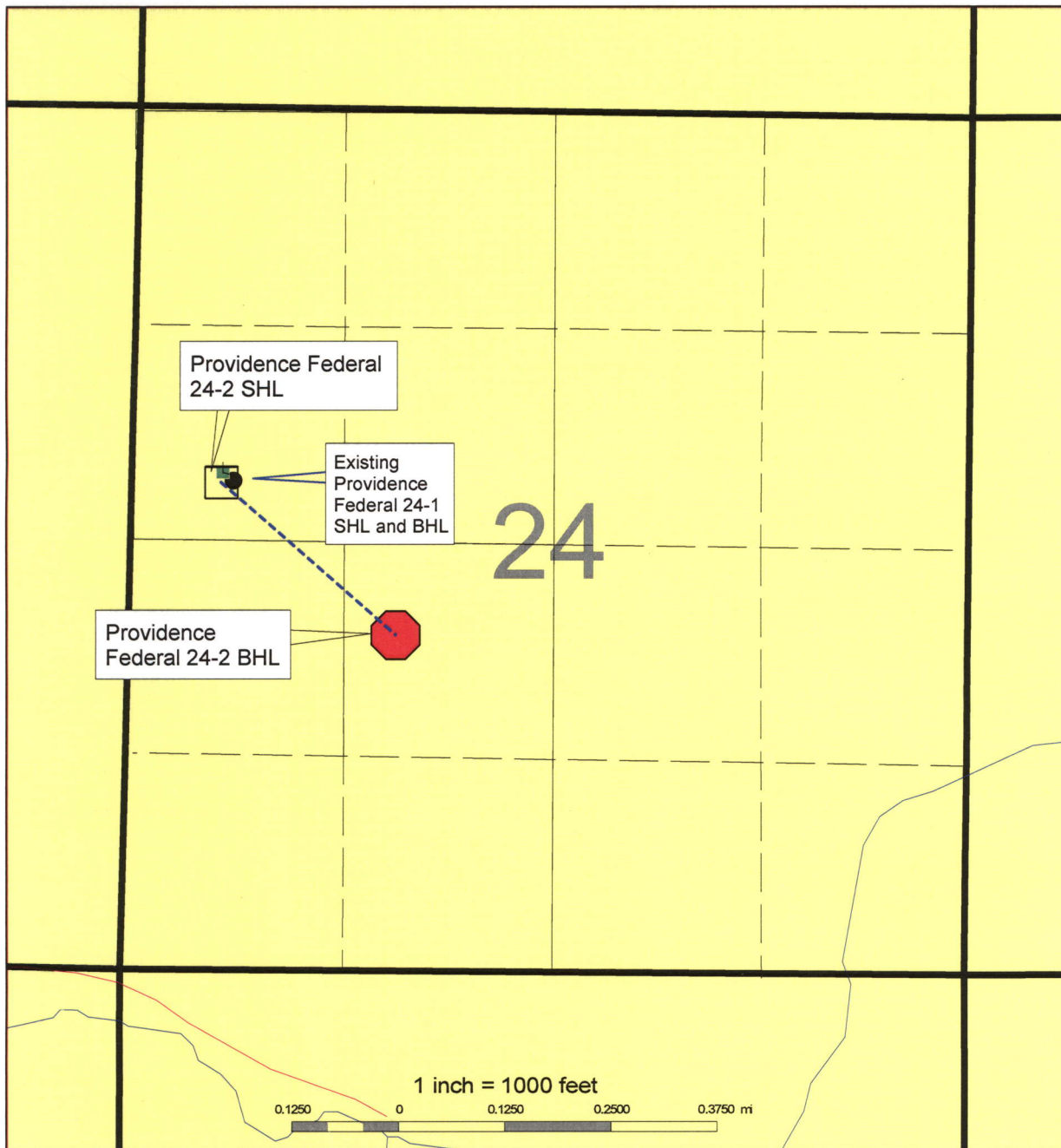
Providence Federal 24-2 Well Location

SHL: 539 FWL, 2318 FNL, SW/4 NW/4, Sec. 24, T20S, R1E, Sanpete Co., UT

BHL: 1650 FWL, 2100 FSL, NE/4 SW/4, Sec. 24, T20S, R1E, Sanpete Co., UT

- Wolverine Lease
- Proposed SHL
- Proposed BHL

	<p>WOLVERINE GAS & OIL Company of Utah, LLC <small>(Operator)</small> <i>Energy Exploration in Partnership with the Environment</i> ONE RIVERFRONT PLAZA 55 CAMPAN, N.W. GRAND RAPIDS, MI 49503-2616 (616) 458-1150</p>
<p>Exception Location and Ownership Plat Section 24, T20S, R1E, Sanpete Co., UT</p>	
<p><small>Date: 4/25/2008</small></p>	<p><small>Author: Mark Lutz Filename: Document in mjl Arapen Valley Proposed Well Dev 20071228.gmp</small></p>




Providence Federal 24-2 Well Location

SHL: 539 FWL, 2318 FNL, SW/4 NW/4, Sec. 24, T20S, R1E, Sanpete Co., UT

BHL: 1650 FWL, 2100 FSL, NE/4 SW/4, Sec. 24, T20S, R1E Sanpete Co., UT

- Wolverine Lease
- Proposed SHL
- Proposed BHL

	WOLVERINE GAS & OIL Company of Utah, LLC (Operator) <i>Energy Exploration in Partnership with the Environment</i> ONE RIVERFRONT PLAZA 55 CAMPALU, N.W. GRAND RAPIDS, MI 49503-2616 (616) 458-1150
Directional Drilling Application Plat (R649-3-11) Section 24, T20S, R1E, Sanpete Co., UT	
Date: 4/25/2008	Author: Mark Lutz Filename: Document in mji Arapen Valley Proposed Well Dev 20071228.gmp

SURFACE USE PLAN OF OPERATIONS

For inclusion with Application for Permit to Drill

Name of Operator: Wolverine Gas and Oil Company of Utah, LLC
Address: One Riverfront Plaza, 55 Campau NW
Grand Rapids, Michigan, 49503-2616

Well Location: **Providence Federal 24-2**
2318' FNL & 539' FWL, Section 24, T20S, R1E, SLB&M
BHL in NE/4 SW/4 Section 24-T20S-R1E
Sanpete County, Utah

Access Road Location: Existing lease road crosses private land in Section 19-T20S-R2E, Sections 24, 25 & 26-T20S-R1E; then crosses BLM land in Section 23 & 24 to well location.

State surface use is not required for construction and drilling of the referenced well. BLM is the surface owner at the drill pad site. Federal surface use is being requested with the associated Application for Permit to Drill (APD) through the BLM – Richfield Field Office.

The Providence Federal 24-2 well is to be drilled from the existing well pad for the Providence Federal 24-1 (originally named and permitted as the Wolverine Federal Arapien Valley 24-1).

Existing Roads:

The vicinity map attached to the APD shows the proposed well pad location and its proximity to the town of Mayfield, Utah. From Mayfield, travel south on county road (Southfield Road) approximately 4 miles to the lease road, then follow lease road westerly about 2.7 miles to well location.

All existing roads will be maintained and kept in good repair during all phases of operation. Vehicle operators will obey posted speed restrictions and observe safe speeds commensurate with road and weather conditions.

Access Roads to be Constructed and Reconstructed:

No additional road construction is required. An upgrade to the existing lease road is proposed within the corridor approved in the EA. No surfacing materials will come from Federal lands. Vehicular travel will be limited to the approved existing access road. No gates or cattle guards on Federal lands are anticipated. The operator will be responsible for all maintenance of the access road including drainage structures.

Location of Existing Wells within a one-mile radius :

Well	Type/status	Surface Location	Bottom Hole Location
Providence Fed 24-1	Undergoing completion	SW4-NW4 Section 24	SW4-NW4 Section 24

Location of Planned Wells:

No other APD for a well in this area has been submitted at this time.

Location of Existing and/or Proposed Facilities if Well is Productive:

(a) *On well pad*—A temporary testing facility has been constructed on this location for the completion and testing of the Providence Federal 24-1 well. It is anticipated that the same facility will be used for completion and testing of the Providence Federal 24-2. The facility is surrounded by a dike of sufficient capacity to contain the storage capacity of the largest tank. All loading lines and valves are located inside the dike surrounding the tank battery.

(b) *Off well pad*—Several options are being considered for a more permanent processing facility. The location and design of such a facility is contingent on whether the well is capable of producing oil, gas or both oil and gas. In the event the facility is to be located on BLM land the Operator will submit a facility plan under Sundry Notice for approval at such time as production requirements are known.

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Location and Type of Water Supply (Rivers, Creeks, Lakes, Ponds and Wells):

The Operator has leased water rights from a shareholder of Mayfield Irrigation Company (Water Right #63-3234), under Order for Temporary Change of Water dated 10-3-2007, which was the supply for drilling the Providence Federal 24-1 well. Water will be piped to the reserve pit from an irrigation riser in Section 19-T20S-R2E, under prior agreement with the landowner. Should additional water sources be necessary they will be properly permitted through the State of Utah – Division of Water Rights. The BLM will be notified of any changes in water supply.

Construction Materials:

In the event the existing well pad needs additional surface material, imported granular borrow from an approved source will be applied. No construction materials will be removed from federal lands.

Methods for Handling Waste Disposal:

The existing reserve pit will be used to contain waste mud and drill cuttings, which will be buried onsite. All borehole fluids and salts will be contained in the reserve pit. The pit is lined with 12 mil thickness plastic nylon reinforced liner material. No trash, scrap pipe, etc. that could puncture the liner will be disposed of in the pit. A minimum 2-foot freeboard will be maintained in the pit at all times during the drilling and completion operations. After evaporation of fluids, back-fill of sub-soil and compaction to prevent settling will occur within 90 days of cessation of pit use. If necessary, any remaining fluids will be pumped out of the pit and transported off site to an approved disposal facility.

No chemicals subject to reporting under SARA Title III (hazardous materials) in an amount greater than 10,000 pounds will be used, produced, stored, transported, or disposed of in association with the drilling, testing, or completion of the well. Furthermore, no extremely hazardous substances, as defined in 40 CFR 355, in threshold planning quantities, will be used, produced, stored, transported, or disposed of in association with the drilling, testing, or completion of the well.

Wastewater will not be discharged on the surface at this site and the drilling of the well will not require a wastewater management plan.

Produced fluids from the well other than water will be stored in a test tank until such time as hookup to production facilities can be made. Any spills of oil, gas, salt water or other fluids will be cleaned up and removed.

All rubbish and debris will be kept in containers on the well site, and will be hauled to an approved disposal site upon completion of drilling operations and as needed during such operations. There will be no chemical disposal of any type.

Self-contained, portable toilets will be used for human waste, and the waste will be disposed at an approved human waste disposal facility. Sanitation will comply with local and state regulations.

Ancillary Facilities:

Ancillary facilities are described above under “*Location of Existing and/or Proposed Facilities if Well is Productive.*” Garbage containers and portable toilets are the only other ancillary facilities proposed in this application.

Well Site Layout:

The Location Layout Drawings attached to the APD show the proposed well surface location in relation to the existing pad layout, which includes location of the reserve pit and access road onto the pad, turnaround areas, parking areas, office facilities, soil material stockpiles, and the orientation of the rig with respect to the pad and other facilities. Pad Section Sheets in said attachment show cuts and fills required for construction, and their relationship to topography. As detailed above under Methods for Handling Waste Disposal, the reserve pit is lined and appropriate measures have been taken to prevent leakage. The pit is presently fenced on three sides, as it will be during drilling operations, and the fourth side will be immediately fenced following drilling and completion of the well.

The pad design is consistent with BLM specifications.

All surface activities will be supervised by a qualified, responsible company representative who is aware of the

terms and conditions of the APD and specifications in the approved plans.

All cut and fill slopes are such that stability can be maintained for the life of the activity.

A diversion ditch has been constructed as shown around the well pad to prevent surface waters from entering the well site area.

The stockpiled topsoil (first 6 inches or maximum available) has been stored on the northeast side of the pad. All topsoil has been stockpiled for reclamation in such a way as to prevent soil loss and contamination.

Plans for Reclamation of the Surface:

Interim Reclamation: In the event production is established the Operator will perform interim reclamation of the site. Interim reclamation will consist of reclamation of the reserve pit and reclamation of that portion of the well pad not needed for ongoing operations. After evaporation of fluids, the pit will be back-filled with sub-soil and/or rock and compacted to prevent settling. The pit area will be surfaced with granular borrow to render it a usable part of the well pad. All portions of the pad no longer necessary for well workover, testing or treating will be contoured to match the surrounding terrain to the best extent practical, and seeded as prescribed by the BLM.

Final Reclamation: At such time that all production ceases from the proposed well and other wells drilled from the same pad, and the wells have been plugged and abandoned, the Operator will perform final reclamation of the site. Final reclamation will consist of replacing spoil into the cut areas in a manner that will return the impacted area to its original contour and condition, to the greatest extent practicable, and blending same with undisturbed land to establish a natural-looking contour. All disturbed land will be seeded per BLM requirements.

During the life of the project and until the site is released from liability for reclamation, the project will be inspected at least annually for noxious weeds. If invasive noxious weeds are found, the weeds will be treated to eliminate further reproduction, and treatment shall continue until the weeds have been eradicated. If noxious weeds are found, the BLM will be notified of their occurrence.

Surface Ownership:

The surface of the well pad and northerly 0.75 mile of the access road are owned by BLM. Surface of the remainder of the access road is owned by Farmland Reserve, Inc., 50 East North Temple, 12th Floor, Salt Lake City, Utah 84150. The Operator has a Surface Damage and Access Agreement with said surface owner for the construction and use of said road.

Other Information:

Western Land Services has conducted a Class III archeological survey to the appropriate agencies. The Survey Report was submitted under the APD for the Providence Federal 24-1 (Wolverine Federal Arapien Valley 24-1).

Western Land Services is preparing a Categorical Exclusion for the Providence Federal 24-2. The applicable Categorical Exclusion reference in Section 390 of the Energy Policy Act of 2005 is exclusion number (b)(2) which is *"Drilling an oil or gas well at a location or well pad site at which drilling has occurred previously within five (5) years prior to the date of spudding the well."*

No stream alteration or drainage crossings are involved that require additional State or Federal approval.

A paleontological clearance is not required since suitable formations do not exist within the project area.

All permanent structures constructed or installed will be painted non-reflective Carlsbad Cavern Tan, unless otherwise directed by the AO. All facilities will be painted within six months of installation. Facilities that are required to comply with Occupational Safety and Health Act (OSHA) shall be excluded.

Operator Certification

I hereby certify that I, or someone under my direct supervision, have inspected the drill site and access route proposed herein; that I am familiar with the conditions which currently exist; that I, or someone under my direct supervision, have full knowledge of state and Federal laws applicable to this operation; that the statements made in this APD package are, to the best of my knowledge, true and correct; and that the work associated with the operations proposed herein will be performed in conformity with this APD package and the terms and conditions under which it is approved. I also certify that I, or the company I represent, am responsible for the operations conducted under this application. These statements are subject to the provisions of 18 U.S.C. 1001 for the filing of false statements.

Executed this 30 day of April, 2008.

Signature:



Edward Higuera

Position Title: Manager—Development

Address: Wolverine Gas and Oil Company of Utah, LLC
One Riverfront Plaza, 55 Campau NW
Grand Rapids, Michigan, 49503-2616

Telephone: 616-458-1150

Field representative (if not above signatory)

Address: Paul Spiering
1140 N Centennial Park Drive
Richfield, Utah 84701

Telephone: 435-896-1943

Agents not directly employed by the operator must submit a letter from the operator authorizing that agent to act or file this application on their behalf.

WOLVERINE GAS AND OIL COMPANY OF UTAH, LLC

DRILLING PLAN

Providence Federal 24-2
SW/4 NW/4 Section 24, Township 20 South, Range 1 East, S.L.B.&M.
Sanpete County, Utah

Plan Summary:

It is planned to drill this confidential exploratory well as a directional bore hole due to surface topography constraints and in accordance with the enclosed directional drilling plan. The well will be drilled to a depth of 13,580' to test the Navajo1, Kaibab and Navajo2 formations. Well path deviation caused by subsurface geologic irregularities is expected to be the primary drilling concern in this area. No abnormal pressure is anticipated. The presence of Hydrogen Sulfide gas is anticipated in the Kaibab Formation and deeper, and an H2S contingency plan to be in effect before drilling below the Moenkopi at +/-11,000' compliments this drilling plan.

The planned location is as follows:

Surface Hole Location: 2318' FNL, 539' FWL, Section 24, T20S, R1E, S.L.B. & M.

Bottom Hole Location: 2100' FSL, 1650' FWL, Section 24, T20S, R1E, S.L.B. & M.

Conductor casing will be set at approximately 120 feet and cemented to surface. A 17-1/2" hole will be drilled to 2000' where 13-3/8" surface casing will be set and cemented to surface. A 12-1/4" hole will be drilled through the Navajo to approximately 9850' where the well will be logged and 9-5/8" casing will be set and cemented. Then, an 8-1/2" hole will be drilled to 13,580'. The well will be logged and if significant porosity and hydrocarbon shows are encountered in the Kaibab or Navajo2 formations, 5-1/2" production casing will be set and cemented at TD.

Drilling activities at this well are expected to commence as early as June 1, 2008 if regulatory approvals are attained.

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Well Name: Providence Federal 24-2

Surface Location: 2318' FNL, 539' FWL SW/4 NW/4 Section 24, T20S, R01E, S.L.B. & M. Sanpete County, Utah

TD Bottom-Hole Location: 2100' FSL, 1650' FWL ^{NSW}SW/4 NW/4 Section 24, T20S, R01E, S.L.B. & M. Sanpete County, Utah

Elevations: 5554' (Est. Graded Elevation) 5580' (Est. KB)

I. Geology:

Tops of important geologic markers and anticipated water, oil, gas, and mineral content are as follows:

<u>Formation</u>	<u>TVD Interval (KB)</u>	<u>MD Interval (KB)</u>	<u>Contents</u>	<u>Pressure Gradient</u>
Arapien	26' - 8616'	26' - 8796'		
Twin Creek	8616' - 8920'	8796' - 9100'		
Navajo1	8920' - 10347'	9100' - 10527'	O/G/W	0.44 psi/ft
Chinle	10347' - 10757'	10527' - 10937'		
Shinarump	10757' - 10811'	10937' - 10991'		
Moenkopi	10811' - 11402'	10991' - 11582'		
Shinabkaib	11402' - 11710'	11582' - 11890'		
Sinbad	11710' - 11966'	11890' - 12146'		
Black Dragon	11966' - 12120'	12146' - 12300'		
Kaibab	12120' - 12197'	12300' - 12377'	O/G/W	0.44 psi/ft
Twin Creek2	12197' - 12501'	12377' - 12681'		
Navajo2	12501' - 13400'	12681' - 13580'	O/G/W	0.44 psi/ft
Total Depth	13,400'	13,580'		

II. Well Control:

The contracted drilling rig has a 10M BOP system but conditions only require a 5M BOP system. BOPE will be in place and tested as a 5M system prior to drilling out the surface casing shoe. See attached schematic of BOPE.

A. The BOPE will as a minimum include the following:

Wellhead Equipment (5M Min.):

<u>BOPE Item</u>	<u>Flange Size and Rating</u>
Annular Preventer	13-5/8" 5M
Double Rams (5" Pipe - top, Blind - bottom)	13-5/8" 10M
Drilling Spool w/ 2 side outlets (4" Choke Line, 4" Kill Line)	13-5/8" 10M x 13-5/8" 10M
Single Ram (Pipe)	13-5/8" 10M
Spacer Spool	13-5/8" 10M x 13-5/8" 10M
Casing Spool (Multi-Bowl)	13-5/8" 10M x 13-5/8" 5M
Casing Head (13-5/8" SOW, w/ two 2-1/16" SSO's)	13-5/8" 5M

Auxiliary Equipment (5M minimum):

<u>BOPE Item</u>
Choke Line with 2 valves (3" minimum)
Kill Line with 2 valves and one check valve (2" minimum)
2 Chokes with one remotely controlled at a location readily accessible to the driller
Upper and lower kelly cock valves with handles
Safety Valves to fit all drill string connections in use
Inside BOP or float sub
Pressure gauge on choke manifold
Fill-up line above the uppermost preventer
Wear bushing in casing head

- A. **Choke manifold** will be functionally equipped and sized at a minimum as shown on the attached diagram. All chokes will be straight lines, or use tee blocks or be targeted with running tees if there are turns, and all choke lines will be anchored. All valves (except chokes) in the kill line choke manifold and choke line will be full opening and allow straight through flow.
- B. **System accumulator** will have sufficient capacity to open the hydraulically-controlled gate valve and close all rams plus the annular preventer (3 ram system will have added 50 percent safety factor to compensate for any fluid loss in the control system or preventers) and retain a minimum pressure of 200 psi above pre-charge on the closing manifold without use of the closing unit pumps. The fluid reservoir capacity shall be double the usable fluid volume of the accumulator system capacity and the fluid level of the reservoir shall be maintained at the manufacturer's recommendations. The accumulator will have two (2) independent power sources available to close the preventers. Nitrogen bottles may be one of those sources, and if so, will have charge maintained per manufacturer's specifications.
- C. **Accumulator pre-charge pressure test** will be conducted prior to connecting the closing unit to the BOP stack and at least once every 6 months. The accumulator pressure will be corrected if the measured precharge pressure is found to be above or below the maximum or minimum specified limits. Only nitrogen gas will be used to precharge.
- D. **Power for the closing unit pumps** will be available to the unit at all times so that the pumps will automatically start when the closing valve manifold pressure has decreased to the pre-set level.
- E. **Accumulator pump capacity** will be such that, with the accumulator system isolated from service, the pumps will be capable of opening the hydraulically-operated gate valve (if so equipped), plus closing the annular preventer on the smallest size drill pipe to be used within 2 minutes, and retaining a minimum of 200 psi above the specified accumulator pre-charge pressure.
- F. **Locking devices**, either manual (i.e., hand wheels) or automatic, will be installed on the ram type preventers. A valve will be installed in the closing line as close as possible to the annular preventer to act as a locking device. This valve shall be maintained in the open position and shall be closed only when the power source for the accumulator system is inoperative.
- G. **Remote controls** will be readily accessible to the driller and will be capable of both opening and closing all preventers. Master controls shall be at the accumulator and shall be capable of opening and closing all preventers and the choke line valve.
- H. **Well control equipment testing** will be performed using clear water when the equipment is initially installed, whenever any seal subject to test pressure is broken, following related repairs, and as a minimum, every 30-day interval. The tests will apply to all related well control equipment.

Ram type preventers and associated equipment will be isolated and tested to 5000 psi. The annular preventer will be tested to 2500 psi. Pressure shall be maintained for at least 10 minutes or until requirements of test are met, whichever is longer, for all tests. A casing head valve will be open below the test plug during testing of the BOP stack. Valves will be tested from the working pressure side with all down-stream valves open. Kill line valves will be tested with the check valve held open or the ball removed.

Pipe and blind rams will be activated each trip, but not more than once a day. The annular preventers will be functionally operated at least weekly. A pit level drill will be conducted weekly for each crew. All BOPE drills and tests will be recorded in the IADC driller's log.

III. Casing and Cementing:

A. Casing Program (all new casing):

<u>Hole Size</u>	<u>Casing Size</u>	<u>Weight</u>	<u>Grade</u>	<u>Connection</u>	<u>Coupling Diameter</u>	<u>Setting Depth</u>
30"	24"		Conductor			0' - 120' GL
17.50"	13.375"	68.0	J-55	BTC	14.375"	0' - 2000' KB
12.25"	9.625"	47.0	L-80	LTC	10.625"	0' - 4000' KB
12.25"	9.625"	53.5	HCP-110	LTC	10.625"	4000' - 9850' KB
8.5"	5.500"	20.0	L-80	LTC & BTC	6.050"	0' - 13,580' KB

	Surface	Intermediate	Production
Casing O. D. (in)	13.375	9.625	5.500
Casing Grade	J-55	HCP-110 & L-80	L-80
Weight of Pipe (lbs/ft)	68.0	47.0 & 53.5	20.0
Connection	BTC	LTC	LTC & BTC
Top Setting Depth - MD (ft)	0	0	0
Top Setting Depth - TVD (ft)	0	0	0
Bottom Setting Depth - MD (ft)	2000	9850	13580
Bottom Setting Depth - TVD (ft)	2000	9670	13400
Maximum Mud Weight - Inside (ppg)	9.0	10.6	9.0
Maximum Mud Weight - Outside (ppg)	9.0	10.6	9.0
Design Cement Top - TVD (ft)	0	1500	9500
Design Cement Top - MD (ft)	0	1500	9340
Max. Hydrostatic Inside w/ Dry Outside (psi)	936	5330	6271
Casing Burst Rating (psi)	3450	10900	9190
Burst Safety Factor (1.10 Minimum)	3.69	2.04	1.47
Max. Hydrostatic Outside w/ Dry Inside (psi)	936	5330	6271
Collapse Rating	1950	10000	8830
Collapse Safety Factor (1.125 Minimum)	2.08	1.88	1.41
Casing Weight in Air 1000 lbs	136	501	272
Body Yield 1000 lbs	1069	1086	466
Joint Strength 1000 lbs	1140	893	503
Tension Safety Factor (1.70 Minimum)	7.86	1.78	1.71

Casing with same or greater burst, collapse, and tension rating may be substituted for any of the planned casing sizes depending on availability and actual conditions.

B. Cementing Program

<u>Casing Size</u>	<u>Cement Slurry</u>	<u>Quantity (sks)</u>	<u>Density (ppg)</u>	<u>Yield (ft³/sk)</u>
13.375"	Lead: CBM Lite	375	10.5	4.12
	Tail: Premium Plus	450	15.6	1.19
9.625"	Lead: Elastiseal foamed	1500	10.5ppge	2.02
	Tail: Premium AG	300	14.4	1.47
5.500"	50:50 POZ Premium AG w/20% silica, retarder	950	14.4	1.21

Surface: 13-3/8" surface casing will be cemented from setting depth (2000') to surface and topped out with premium cement if necessary. Hardware will include a guide shoe, float collar, top plug, and a minimum of one centralizer per joint on the bottom three (3) casing joints. Water or other preflush fluid pumped ahead of the slurry will separate cement from the drilling fluids.

Intermediate: 9-5/8" intermediate casing will be cemented from setting depth (9850') to 1500' (into the 13-3/8" casing shoe at 2000'). Slurry volume will be based on calipered hole size plus a minimum of 25% excess. Hardware will include a guide shoe, float collar, top plug, and centralizers on bottom and as needed across any pay zones. The cement will be foamed due to the required cement column to raise cement to 1500'. Water and preflush fluid pumped ahead of the slurry will separate cement from the drilling fluids.

Drilling liner: none planned

Production: 5-1/2" production casing may then be run and cemented in one stage from setting depth of 13,580' to 9600' (into the 9-5/8" casing shoe at 9850') surface. A minimum of 20 percent silica will be added to the cement slurry if bottom-hole temperature exceeds 230 °F. Slurry volume will be based on calipered hole size plus 20% excess. Hardware will include a guide shoe, float collar, top plug, and centralizers as needed across any pay zones. Water and preflush fluid pumped ahead of the slurry will separate cement from the drilling fluids.

Other: - The BLM will be notified at least twenty-four hours prior to running and cementing the surface and production casing strings.

Actual cement slurries for all casing will be based on final service company recommendations.

The size, weight, grade, type of thread, number of joints, and footage of all casing run will be recorded in the driller's log. The amount and type of all cement pumped will be recorded in the driller's log.

Adequate time will be allowed before drilling out for the cement at the casing shoe to achieve a minimum 500-psi compressive strength.

All casing strings will be tested to 1500 psi before drilling out and if pressure declines by more than 10 percent in 30 minutes, corrective action will be taken.

Before drilling more than 20 feet of new hole below each casing string, a pressure integrity test of the casing shoe will be performed to a minimum of the mud weight equivalent anticipated to control the pore pressure to the next casing depth or at total depth of the well.

IV. Mud Program:

<u>Depth</u>	<u>Mud Weight (ppg)</u>	<u>Mud Type</u>	<u>Viscosity</u>	<u>Fluid Loss</u>
0 – 2000'	8.4 – 9.4	Fresh Water	26 - 40	N/C to 20 cc
2000' – 9850'	10.0 - 10.5	Salt Mud	32 - 50	N/C to 10 cc
9850' – 13580'	8.6 – 9.1	LSND Polymer	35 - 45	8 – 10 cc

- A. After mudding up, slow pump rates will be taken daily and recorded in the driller's log.
- B. Visual mud monitoring equipment will be in place to detect volume changes indicating loss or gain of circulating fluid volume.
- C. Abnormal pressures are not anticipated. In the event such pressures are to be anticipated, electronic/mechanical mud monitoring equipment will be in place and include as a minimum; pit volume totalizer (PVT); stroke counter; and flow sensor.
- D. A mud test will be performed every 24 hours after mudding up to determine, as applicable: density, viscosity, gel strength, filtrate, and pH.
- E. The 10M BOPE system is not required for conditions on this well and use of the trip tank is not anticipated.
- F. Gas detecting equipment will be installed in the mud return system, and hydrocarbon gas shall be monitored for pore pressure changes. The presence of Hydrogen Sulfide gas may encountered and an H2S contingency plan is included here.
- G. The need to vent combustible or noncombustible gas is not expected. If needed, a flare system designed to gather and burn all gas will be available. The flare line discharge will be located more than 100 feet from the well head and it will be positioned downwind of the prevailing wind direction. The flare line will have straight lines unless turns are targeted with running tees and it will be anchored. The flare system will have an effective method for ignition.
- H. Abnormal pressure is not expected. If abnormal pressure is to be anticipated, a mud-gas separator (gas buster) will be installed and operable beginning at a point at least 500 feet above any anticipated hydrocarbon zone of interest.

V. Evaluation:

- A. Mud Log: A mud logging unit will be in operation from spud to TD. Samples will be caught, cleaned, bagged, and marked as required.
- B. Drill Stem Tests: No DST's are expected.
- C. Coring: No whole coring is planned. Rotary side-wall cores may be taken at select intervals in conjunction with open-hole logging operations.
- D. Wireline Logs: Wireline logs will be run as hole conditions allow from total depth to surface casing to assist in determining lithology and potential for hydrocarbon recovery. The logging tools will at a minimum survey resistivity, gamma radiation, and sonic velocity.

VI. Expected Bottom-Hole Pressure and Abnormal Conditions:

- A. Hydrogen Sulfide: Hydrogen Sulfide (H₂S) gas may exist in the geologic formations to be penetrated by this well, and the H2S contingency plan will be in effect at 11,000'
- B. Pressure: No abnormally pressured zones are expected in this well. The pressure gradient for all potentially productive formations is expected to be approximately 0.44 psi/ft.
- C. Temperature: No abnormally high temperatures are expected. Bottom-hole temperature is expected to be approximately 280 °F.

end

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To correct azimuth from Magnetic to True add 12.15 degrees
For example: if the Magnetic North Azimuth = 80 degs, then the Grid North Azimuth = $80 + 12.15 = 102.15$

Planned Wellpath Report

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INTEQ

REFERENCE WELLPATH IDENTIFICATION

Operator	WOLVERINE GAS & OIL COMPANY	Slot	Wolverine Providence Federal #24-2 2318'FNL & 539'FWL
Area	UTAH	Well	Wolverine Providence Federal #24-2
Field	Sanpete County	Wellbore	Wolverine Providence Federal #24-2 PWB
Facility	SEC.24-T20S-R1E		

REPORT SETUP INFORMATION

Projection System	NAD83 / Lambert Utah State Planes, Central Zone (4302), feet	Software System	WellArchitect® 2.0
North Reference	True	User	Doublina
Scale	0.999993	Report Generated	4/22/2008 at 3:30:21 PM
Convergence at slot	0.17° West	Database/Source file	Denver/Wolverine_Providence_Federal_#24-2_PWB.xml

WELLPATH LOCATION

	Local coordinates		Grid coordinates		Geographic coordinates	
	North[ft]	East[ft]	Easting[ft]	Northing[ft]	Latitude	Longitude
Slot Location	0.00	0.00	1567106.62	6825002.75	39°03'21.518"N	111°45'29.389"W
Facility Reference Pt			1567106.62	6825002.75	39°03'21.518"N	111°45'29.389"W
Field Reference Pt			1640261.36	6895768.41	39°15'02.016"N	111°30'02.016"W

WELLPATH DATUM

Calculation method	Minimum curvature	Rig on Wolverine Providence Federal #24-2 2318'FNL & 539'FWL (RKB) to Facility Vertical Datum	5580.00ft
Horizontal Reference Pt	Slot	Rig on Wolverine Providence Federal #24-2 2318'FNL & 539'FWL (RKB) to Mean Sea Level	5580.00ft
Vertical Reference Pt	Rig on Wolverine Providence Federal #24-2 2318'FNL & 539'FWL (RKB)	Facility Vertical Datum to Mud Line (Facility)	0.00ft
MD Reference Pt	Rig on Wolverine Providence Federal #24-2 2318'FNL & 539'FWL (RKB)	Section Origin	N 0.00, E 0.00 ft
Field Vertical Reference	Mean Sea Level	Section Azimuth	132.00°

Planned Wellpath Report

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REFERENCE WELLPATH IDENTIFICATION			
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Field	Sanpete County	Wellbore	Wolverine Providence Federal #24-2 PWB
Facility	SEC.24-T20S-R1E		

WELLPATH DATA (155 stations) † = interpolated/extrapolated station									
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	TVD from Fld Vert Ref [ft]	Vert Sect [ft]	North [ft]	East [ft]	DLS [°/100ft]	Comments
0.00†	0.000	132.000	0.00	-5580.00	0.00	0.00	0.00	0.00	
26.00	0.000	132.000	26.00	-5554.00	0.00	0.00	0.00	0.00	Tie On
126.00†	0.000	132.000	126.00	-5454.00	0.00	0.00	0.00	0.00	
226.00†	0.000	132.000	226.00	-5354.00	0.00	0.00	0.00	0.00	
326.00†	0.000	132.000	326.00	-5254.00	0.00	0.00	0.00	0.00	
426.00†	0.000	132.000	426.00	-5154.00	0.00	0.00	0.00	0.00	
526.00†	0.000	132.000	526.00	-5054.00	0.00	0.00	0.00	0.00	
626.00†	0.000	132.000	626.00	-4954.00	0.00	0.00	0.00	0.00	
726.00†	0.000	132.000	726.00	-4854.00	0.00	0.00	0.00	0.00	
826.00†	0.000	132.000	826.00	-4754.00	0.00	0.00	0.00	0.00	
926.00†	0.000	132.000	926.00	-4654.00	0.00	0.00	0.00	0.00	
1026.00†	0.000	132.000	1026.00	-4554.00	0.00	0.00	0.00	0.00	
1126.00†	0.000	132.000	1126.00	-4454.00	0.00	0.00	0.00	0.00	
1226.00†	0.000	132.000	1226.00	-4354.00	0.00	0.00	0.00	0.00	
1326.00†	0.000	132.000	1326.00	-4254.00	0.00	0.00	0.00	0.00	
1426.00†	0.000	132.000	1426.00	-4154.00	0.00	0.00	0.00	0.00	
1526.00†	0.000	132.000	1526.00	-4054.00	0.00	0.00	0.00	0.00	
1626.00†	0.000	132.000	1626.00	-3954.00	0.00	0.00	0.00	0.00	
1726.00†	0.000	132.000	1726.00	-3854.00	0.00	0.00	0.00	0.00	
1826.00†	0.000	132.000	1826.00	-3754.00	0.00	0.00	0.00	0.00	
1926.00†	0.000	132.000	1926.00	-3654.00	0.00	0.00	0.00	0.00	
2026.00†	0.000	132.000	2026.00	-3554.00	0.00	0.00	0.00	0.00	
2126.00†	0.000	132.000	2126.00	-3454.00	0.00	0.00	0.00	0.00	
2200.00	0.000	132.000	2200.00	-3380.00	0.00	0.00	0.00	0.00	End of Tangent
2226.00†	0.390	132.000	2226.00	-3354.00	0.09	-0.06	0.07	1.50	
2326.00†	1.890	132.000	2325.98	-3254.02	2.08	-1.39	1.54	1.50	
2426.00†	3.390	132.000	2425.87	-3154.13	6.68	-4.47	4.97	1.50	
2526.00†	4.890	132.000	2525.60	-3054.40	13.90	-9.30	10.33	1.50	
2626.00†	6.390	132.000	2625.12	-2954.88	23.73	-15.88	17.64	1.50	
2726.00†	7.890	132.000	2724.34	-2855.66	36.16	-24.20	26.87	1.50	

Planned Wellpath Report

Wolverine Providence Federal #24-2_pwp REV.01
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INTEQ

REFERENCE WELLPATH IDENTIFICATION

Operator	WOLVERINE GAS & OIL COMPANY	Slot	Wolverine Providence Federal #24-2 2318'FNL & 539'FWL
Area	UTAH	Well	Wolverine Providence Federal #24-2
Field	Sanpete County	Wellbore	Wolverine Providence Federal #24-2 PWB
Facility	SEC.24-T20S-R1E		

WELLPATH DATA (155 stations) † = interpolated/extrapolated station

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	TVD from Fld Vert Ref [ft]	Vert Sect [ft]	North [ft]	East [ft]	DLS [°/100ft]	Comments
2826.00†	9.390	132.000	2823.20	-2756.80	51.18	-34.25	38.04	1.50	
2926.00†	10.890	132.000	2921.64	-2658.36	68.79	-46.03	51.12	1.50	
3026.00†	12.390	132.000	3019.58	-2560.42	88.96	-59.53	66.11	1.50	
3126.00†	13.890	132.000	3116.96	-2463.04	111.69	-74.74	83.01	1.50	
3216.67	15.250	132.000	3204.71	-2375.29	134.50	-90.00	99.95	1.50	End of Build (S)
3226.00†	15.250	132.000	3213.71	-2366.29	136.96	-91.64	101.78	0.00	
3326.00†	15.250	132.000	3310.19	-2269.81	163.26	-109.24	121.33	0.00	
3426.00†	15.250	132.000	3406.67	-2173.33	189.56	-126.84	140.87	0.00	
3526.00†	15.250	132.000	3503.15	-2076.85	215.87	-144.44	160.42	0.00	
3626.00†	15.250	132.000	3599.62	-1980.38	242.17	-162.04	179.97	0.00	
3726.00†	15.250	132.000	3696.10	-1883.90	268.47	-179.64	199.51	0.00	
3826.00†	15.250	132.000	3792.58	-1787.42	294.78	-197.24	219.06	0.00	
3926.00†	15.250	132.000	3889.06	-1690.94	321.08	-214.84	238.61	0.00	
4026.00†	15.250	132.000	3985.54	-1594.46	347.38	-232.44	258.16	0.00	
4126.00†	15.250	132.000	4082.02	-1497.98	373.69	-250.04	277.70	0.00	
4226.00†	15.250	132.000	4178.50	-1401.50	399.99	-267.64	297.25	0.00	
4326.00†	15.250	132.000	4274.98	-1305.02	426.29	-285.24	316.80	0.00	
4426.00†	15.250	132.000	4371.45	-1208.55	452.59	-302.85	336.34	0.00	
4526.00†	15.250	132.000	4467.93	-1112.07	478.90	-320.45	355.89	0.00	
4626.00†	15.250	132.000	4564.41	-1015.59	505.20	-338.05	375.44	0.00	
4726.00†	15.250	132.000	4660.89	-919.11	531.50	-355.65	394.98	0.00	
4826.00†	15.250	132.000	4757.37	-822.63	557.81	-373.25	414.53	0.00	
4926.00†	15.250	132.000	4853.85	-726.15	584.11	-390.85	434.08	0.00	
5026.00†	15.250	132.000	4950.33	-629.67	610.41	-408.45	453.63	0.00	
5126.00†	15.250	132.000	5046.81	-533.19	636.72	-426.05	473.17	0.00	
5226.00†	15.250	132.000	5143.28	-436.72	663.02	-443.65	492.72	0.00	
5326.00†	15.250	132.000	5239.76	-340.24	689.32	-461.25	512.27	0.00	
5426.00†	15.250	132.000	5336.24	-243.76	715.63	-478.85	531.81	0.00	
5526.00†	15.250	132.000	5432.72	-147.28	741.93	-496.45	551.36	0.00	
5626.00†	15.250	132.000	5529.20	-50.80	768.23	-514.05	570.91	0.00	

Planned Wellpath Report

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REFERENCE WELLPATH IDENTIFICATION			
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Area	UTAH	Well	Wolverine Providence Federal #24-2
Field	Sanpete County	Wellbore	Wolverine Providence Federal #24-2 PWB
Facility	SEC.24-T20S-R1E		

WELLPATH DATA (155 stations) † = interpolated/extrapolated station

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	TVD from Fid Vert Ref [ft]	Vert Sect [ft]	North [ft]	East [ft]	DLS [°/100ft]	Comments
5651.71†	15.250	132.000	5554.00	-26.00	774.99	-518.57	575.93	0.00	ARAPIEN
5726.00†	15.250	132.000	5625.68	45.68	794.54	-531.65	590.45	0.00	
5826.00†	15.250	132.000	5722.16	142.16	820.84	-549.25	610.00	0.00	
5926.00†	15.250	132.000	5818.64	238.64	847.14	-566.85	629.55	0.00	
6026.00†	15.250	132.000	5915.11	335.11	873.44	-584.45	649.10	0.00	
6126.00†	15.250	132.000	6011.59	431.59	899.75	-602.05	668.64	0.00	
6226.00†	15.250	132.000	6108.07	528.07	926.05	-619.65	688.19	0.00	
6326.00†	15.250	132.000	6204.55	624.55	952.35	-637.25	707.74	0.00	
6426.00†	15.250	132.000	6301.03	721.03	978.66	-654.85	727.28	0.00	
6526.00†	15.250	132.000	6397.51	817.51	1004.96	-672.45	746.83	0.00	
6626.00†	15.250	132.000	6493.99	913.99	1031.26	-690.05	766.38	0.00	
6726.00†	15.250	132.000	6590.47	1010.47	1057.57	-707.65	785.93	0.00	
6826.00†	15.250	132.000	6686.94	1106.94	1083.87	-725.25	805.47	0.00	
6926.00†	15.250	132.000	6783.42	1203.42	1110.17	-742.85	825.02	0.00	
7026.00†	15.250	132.000	6879.90	1299.90	1136.48	-760.45	844.57	0.00	
7126.00†	15.250	132.000	6976.38	1396.38	1162.78	-778.05	864.11	0.00	
7226.00†	15.250	132.000	7072.86	1492.86	1189.08	-795.65	883.66	0.00	
7326.00†	15.250	132.000	7169.34	1589.34	1215.39	-813.25	903.21	0.00	
7426.00†	15.250	132.000	7265.82	1685.82	1241.69	-830.85	922.75	0.00	
7526.00†	15.250	132.000	7362.30	1782.30	1267.99	-848.45	942.30	0.00	
7626.00†	15.250	132.000	7458.77	1878.77	1294.29	-866.05	961.85	0.00	
7660.99	15.250	132.000	7492.53	1912.53	1303.50	-872.21	968.69	0.00	End of Tangent (S)
7726.00†	14.275	132.000	7555.40	1975.40	1320.06	-883.29	981.00	1.50	
7826.00†	12.775	132.000	7652.62	2072.62	1343.45	-898.94	998.38	1.50	
7926.00†	11.275	132.000	7750.42	2170.42	1364.28	-912.88	1013.86	1.50	
8026.00†	9.775	132.000	7848.74	2268.74	1382.55	-925.11	1027.43	1.50	
8126.00†	8.275	132.000	7947.50	2367.50	1398.23	-935.60	1039.09	1.50	
8226.00†	6.775	132.000	8046.63	2466.63	1411.33	-944.36	1048.82	1.50	
8326.00†	5.275	132.000	8146.08	2566.08	1421.82	-951.39	1056.62	1.50	
8426.00†	3.775	132.000	8245.76	2665.76	1429.71	-956.66	1062.48	1.50	

Planned Wellpath Report

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MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	TVD from Fld Vert Ref [ft]	Vert Sect [ft]	North [ft]	East [ft]	DLS [°/100ft]	Comments
8526.00†	2.275	132.000	8345.62	2765.62	1434.99	-960.20	1066.41	1.50	
8626.00†	0.775	132.000	8445.58	2865.58	1437.65	-961.98	1068.38	1.50	
8677.65	0.000	132.000	8497.23 ¹	2917.23	1438.00	-962.21	1068.64	1.50	Drop (S)
8726.00†	0.000	132.000	8545.58	2965.58	1438.00	-962.21	1068.64	0.00	
8796.42†	0.000	132.000	8616.00	3036.00	1438.00	-962.21	1068.64	0.00	TWIN CREEK
8826.00†	0.000	132.000	8645.58	3065.58	1438.00	-962.21	1068.64	0.00	
8926.00†	0.000	132.000	8745.58	3165.58	1438.00	-962.21	1068.64	0.00	
9026.00†	0.000	132.000	8845.58	3265.58	1438.00	-962.21	1068.64	0.00	
9100.42†	0.000	132.000	8920.00	3340.00	1438.00	-962.21	1068.64	0.00	NAVAJO 1
9126.00†	0.000	132.000	8945.58	3365.58	1438.00	-962.21	1068.64	0.00	
9226.00†	0.000	132.000	9045.58	3465.58	1438.00	-962.21	1068.64	0.00	
9326.00†	0.000	132.000	9145.58	3565.58	1438.00	-962.21	1068.64	0.00	
9426.00†	0.000	132.000	9245.58	3665.58	1438.00	-962.21	1068.64	0.00	
9448.42†	0.000	132.000	9268.00	3688.00	1438.00	-962.21	1068.64	0.00	NAVJO 1 O/W
9526.00†	0.000	132.000	9345.58	3765.58	1438.00	-962.21	1068.64	0.00	
9626.00†	0.000	132.000	9445.58	3865.58	1438.00	-962.21	1068.64	0.00	
9726.00†	0.000	132.000	9545.58	3965.58	1438.00	-962.21	1068.64	0.00	
9826.00†	0.000	132.000	9645.58	4065.58	1438.00	-962.21	1068.64	0.00	
9926.00†	0.000	132.000	9745.58	4165.58	1438.00	-962.21	1068.64	0.00	
10026.00†	0.000	132.000	9845.58	4265.58	1438.00	-962.21	1068.64	0.00	
10126.00†	0.000	132.000	9945.58	4365.58	1438.00	-962.21	1068.64	0.00	
10226.00†	0.000	132.000	10045.58	4465.58	1438.00	-962.21	1068.64	0.00	
10326.00†	0.000	132.000	10145.58	4565.58	1438.00	-962.21	1068.64	0.00	
10426.00†	0.000	132.000	10245.58	4665.58	1438.00	-962.21	1068.64	0.00	
10526.00†	0.000	132.000	10345.58	4765.58	1438.00	-962.21	1068.64	0.00	
10527.42†	0.000	132.000	10347.00	4767.00	1438.00	-962.21	1068.64	0.00	CHINLE
10626.00†	0.000	132.000	10445.58	4865.58	1438.00	-962.21	1068.64	0.00	
10726.00†	0.000	132.000	10545.58	4965.58	1438.00	-962.21	1068.64	0.00	
10826.00†	0.000	132.000	10645.58	5065.58	1438.00	-962.21	1068.64	0.00	
10926.00†	0.000	132.000	10745.58	5165.58	1438.00	-962.21	1068.64	0.00	

Planned Wellpath Report

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INTEQ

REFERENCE WELLPATH IDENTIFICATION			
Operator	WOLVERINE GAS & OIL COMPANY	Slot	Wolverine Providence Federal #24-2 2318'FNL & 539'FWL
Area	UTAH	Well	Wolverine Providence Federal #24-2
Field	Sanpete County	Wellbore	Wolverine Providence Federal #24-2 PWB
Facility	SEC.24-T20S-R1E		

WELLPATH DATA (155 stations) † = interpolated/extrapolated station									
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	TVD from Fld Vert Ref [ft]	Vert Sect [ft]	North [ft]	East [ft]	DLS [°/100ft]	Comments
10937.42†	0.000	132.000	10757.00	5177.00	1438.00	-962.21	1068.64	0.00	SHINARUMP
10991.42†	0.000	132.000	10811.00	5231.00	1438.00	-962.21	1068.64	0.00	MOENKOPI
11026.00†	0.000	132.000	10845.58	5265.58	1438.00	-962.21	1068.64	0.00	
11126.00†	0.000	132.000	10945.58	5365.58	1438.00	-962.21	1068.64	0.00	
11226.00†	0.000	132.000	11045.58	5465.58	1438.00	-962.21	1068.64	0.00	
11326.00†	0.000	132.000	11145.58	5565.58	1438.00	-962.21	1068.64	0.00	
11426.00†	0.000	132.000	11245.58	5665.58	1438.00	-962.21	1068.64	0.00	
11526.00†	0.000	132.000	11345.58	5765.58	1438.00	-962.21	1068.64	0.00	
11582.42†	0.000	132.000	11402.00	5822.00	1438.00	-962.21	1068.64	0.00	SHNABKAIB
11626.00†	0.000	132.000	11445.58	5865.58	1438.00	-962.21	1068.64	0.00	
11726.00†	0.000	132.000	11545.58	5965.58	1438.00	-962.21	1068.64	0.00	
11826.00†	0.000	132.000	11645.58	6065.58	1438.00	-962.21	1068.64	0.00	
11890.42†	0.000	132.000	11710.00	6130.00	1438.00	-962.21	1068.64	0.00	SINBAD
11926.00†	0.000	132.000	11745.58	6165.58	1438.00	-962.21	1068.64	0.00	
12026.00†	0.000	132.000	11845.58	6265.58	1438.00	-962.21	1068.64	0.00	
12126.00†	0.000	132.000	11945.58	6365.58	1438.00	-962.21	1068.64	0.00	
12146.42†	0.000	132.000	11966.00	6386.00	1438.00	-962.21	1068.64	0.00	BLACK DRAGON
12226.00†	0.000	132.000	12045.58	6465.58	1438.00	-962.21	1068.64	0.00	
12300.42†	0.000	132.000	12120.00	6540.00	1438.00	-962.21	1068.64	0.00	KAIBAB
12326.00†	0.000	132.000	12145.58	6565.58	1438.00	-962.21	1068.64	0.00	
12377.42†	0.000	132.000	12197.00	6617.00	1438.00	-962.21	1068.64	0.00	TWIN CREEK 2
12426.00†	0.000	132.000	12245.58	6665.58	1438.00	-962.21	1068.64	0.00	
12526.00†	0.000	132.000	12345.58	6765.58	1438.00	-962.21	1068.64	0.00	
12626.00†	0.000	132.000	12445.58	6865.58	1438.00	-962.21	1068.64	0.00	
12681.42†	0.000	132.000	12501.00	6921.00	1438.00	-962.21	1068.64	0.00	NAVAJO 2
12726.00†	0.000	132.000	12545.58	6965.58	1438.00	-962.21	1068.64	0.00	
12826.00†	0.000	132.000	12645.58	7065.58	1438.00	-962.21	1068.64	0.00	
12926.00†	0.000	132.000	12745.58	7165.58	1438.00	-962.21	1068.64	0.00	
13026.00†	0.000	132.000	12845.58	7265.58	1438.00	-962.21	1068.64	0.00	
13126.00†	0.000	132.000	12945.58	7365.58	1438.00	-962.21	1068.64	0.00	

Planned Wellpath Report

Wolverine Providence Federal #24-2_pwp REV.01
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INTEQ

REFERENCE WELLPATH IDENTIFICATION

Operator	WOLVERINE GAS & OIL COMPANY	Slot	Wolverine Providence Federal #24-2 2318'FNL & 539'FWL
Area	UTAH	Well	Wolverine Providence Federal #24-2
Field	Sanpete County	Wellbore	Wolverine Providence Federal #24-2 PWB
Facility	SEC.24-T20S-R1E		

WELLPATH DATA (155 stations) † = interpolated/extrapolated station

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	TVD from Fld Vert Ref [ft]	Vert Sect [ft]	North [ft]	East [ft]	DLS [°/100ft]	Comments
13226.00†	0.000	132.000	13045.58	7465.58	1438.00	-962.21	1068.64	0.00	
13326.00†	0.000	132.000	13145.58	7565.58	1438.00	-962.21	1068.64	0.00	
13426.00†	0.000	132.000	13245.58	7665.58	1438.00	-962.21	1068.64	0.00	
13526.00†	0.000	132.000	13345.58	7765.58	1438.00	-962.21	1068.64	0.00	
13580.42	0.000	132.000	13400.00	7820.00	1438.00	-962.21	1068.64	0.00	End of Tangent

HOLE & CASING SECTIONS

Ref Wellbore: Wolverine Providence Federal #24-2 PWB Ref Wellpath: Wolverine Providence Federal #24-2_pwp REV.01

String/Diameter	Start MD [ft]	End MD [ft]	Interval [ft]	Start TVD [ft]	End TVD [ft]	Start N/S [ft]	Start E/W [ft]	End N/S [ft]	End E/W [ft]
24in Conductor	26.00	120.00	94.00	26.00	120.00	0.00	0.00	0.00	0.00
13.375in Casing Surface	26.00	2000.00	1974.00	26.00	2000.00	0.00	0.00	0.00	0.00
9.625in Casing Intermediate	26.00	9850.42	9824.42	26.00	9670.00	0.00	0.00	-962.21	1068.64
5.5in Casing Production	26.00	13580.42	13554.42	26.00	13400.00	0.00	0.00	-962.21	1068.64

TARGETS

Name	MD [ft]	TVD [ft]	North [ft]	East [ft]	Grid East [ft]	Grid North [ft]	Latitude	Longitude	Shape
1) Wolverine Providence Federal #24-2 BHL 2100'FSL & 1650'FWL		8920.00	-962.21	1068.64	1568172.48	6824037.47	39°03'12.007"N	111°45'15.842"W	point

SURVEY PROGRAM

Ref Wellbore: Wolverine Providence Federal #24-2 PWB Ref Wellpath: Wolverine Providence Federal #24-2_pwp REV.01

Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore
5580.00	13580.42	MTC (Collar, post-2000) (Standard)		Wolverine Providence Federal #24-2 PWB

H2S Drilling Operations Plan

Wolverine Gas and Oil Company of Utah, LLC

Providence Federal 24-2

**Section 24
Township 20S - Range 01E
Sanpete Co, Utah**

Elevation 5554 ft

**Wolverine Gas and Oil Company of Utah, LLC
One Riverfront Plaza
55 Campau, NW
Grand Rapids, Michigan 49503-2616**

CONFIDENTIAL

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Introduction

The following H2S Drilling Operations Plan (DOP) is to be used as a contingency plan during the drilling and completion of the Providence Federal 24-2 well. It is intended to follow and meet the requirements of the Bureau of Land Management (BLM) Onshore Oil and Gas Order 6 (Order 6). An H2S Public Protection Plan (PPP) does not accompany this DOP because the Providence Federal 24-2 is located such that exposure risk to the public is minimal and the wellsite does not meet the criteria requiring a PPP as specified in Order 6.

The purpose of this plan is to act as a guideline for personnel working at the wellsite in the event of hydrogen sulfide release during drilling or completion operations. All personnel working at the wellsite as well as service personnel that may travel to location on an unscheduled basis must be familiar with this program and are expected to follow procedures in this plan if Hydrogen Sulfide (H2S) is detected. The cooperation and participation of all personnel involved with the drilling or completion operation is necessary for this plan to be effective.

Directions to location:

From Salina, from 4-way stop in center of Salina, go 4 miles north on Highway 89 and turn right (east) on Willow Creek Road. Proceed E-NE on county road staying left at all intersections for 5.5 miles, then left at "Y" intersection for 2.1 mi, then left (west) on lease road 2.7 mi to location.

From Mayfield, go approximately 4 miles south on county road, then turn right and proceed southwesterly on lease road for 2.7 miles to location.

General

A copy of this H2S DOP is to be available at the wellsite beginning when operations become subject to the terms of Order 6. The operations on any BLM authorized well are subject to Order 6 when drilling reaches a depth of 500 feet above or 3 days prior to penetrating the first zone that is reasonably expected to contain in excess of 100 ppm H2S or when H2S that was not anticipated is encountered in excess of 100 ppm in the gas stream. When the H2S DOP becomes effective, initial training of personnel is to have been completed and all H2S related safety equipment is to be installed, tested and operational. On the Providence Federal 24-2, the first formation with potential to contain H2S is the Kaibab.

I. Duties & Responsibilities

In order to assure proper execution of the contingency plan, it is essential that one person be responsible for and in charge of implementing the procedures outlined in this plan. The order of responsibility will be as follows:

1. Wolverine representative on location - if unable to perform his/ her duties.
2. Alternate Wolverine representative - if unable to perform his/ her duties.
3. Rig Toolpusher/ Supervisor - if unable to perform his/ her duties.
4. Safety consultant representative - if available.

A. All Personnel

1. Always be alert for possible H₂S alarms - both audible and visual.
2. Be familiar with location of Safe Briefing Areas (SBA) and protective breathing equipment.
3. Develop "wind awareness". Be aware of prevailing wind direction as well as nearby uphill areas, should there be no wind.
4. Familiarize yourself with nearest escape routes for safe evacuation.
5. Should H₂S alarm sound, DON'T PANIC - remain calm and follow instructions of person in charge.
6. If the H₂S alarms sound (indicating H₂S concentration greater than 10 ppm):
 - a. Essential personnel shall don the appropriate respiratory protective equipment and follow safety procedures. Essential personnel will continue to wear respiratory protective equipment until the area is declared safe (H₂S < 10 ppm) by the person in charge.
 - b. Non-essential personnel shall evacuate to the appropriate safe briefing area using escape-breathing systems and then wait there for further instructions from the authorized Wolverine drilling representative.
 - c. Initiate rescue protocol if necessary - following training procedures.

B. Wolverine - Foreman

1. The Wolverine foreman will confirm that all personnel on location at any time are trained in H₂S safety and aware of above list of duties.
2. The Wolverine foreman will ensure that all personnel follow all safety and emergency procedures.
3. The Wolverine foreman will endeavor to keep the number of personnel on location to a minimum and to ensure that only essential personnel are on location during critical operations.
4. Should any extreme danger condition exist (H₂S>10 ppm), the Wolverine foreman will:
 - a. Assess the situation and inform all personnel by an appropriate means of communication.
 - b. Be responsible for having an evaluation of the condition conducted and if warranted, have the red flags and warning signs posted at location entrances.
 - c. Go to safe briefing area and give clear instructions relative to hazard on location, and actions for personnel to follow.
 - d. Notify company and regulatory groups of current situation as outlined in this plan and company protocol. Follow appropriate emergency procedures for emergency services notification.
 - e. Proceed to rig floor with personal protection equipment and supervise operations with rig supervisor. Take action to control and reduce the H₂S hazard.
 - f. Verify that essential personnel are properly protected with supplied air breathing equipment and that non-essential personnel are in a safe breathing area.
 - g. Be responsible for contacting local emergency personnel to authorize and conduct an evacuation of persons/residents in area surrounding the drilling location.
 - h. Commence ignition procedures if the ignition criteria as outlined in Section IV of this plan are met.

C. Rig Supervisor- Toolpusher

1. If the Wolverine foreman is unable to perform his/ her duties, and the alternate foreman is also unable or unavailable to perform his duties, the drilling rig toolpusher will assume command of wellsite operations and all responsibilities listed above for drilling foreman.
2. Ensure that all rig personnel are properly trained to work in H₂S environment and fully understand purpose of H₂S alarms, and actions to take when alarms activate. Ensure that all crew personnel understand the buddy system, safe briefing areas, and individual duties as well as emergency evacuation procedures.
3. Should any extreme danger condition (H₂S>10 ppm) arise, the rig toolpusher shall assist the Wolverine foreman by doing the following:
 - a. Proceed to the rig floor with personal protection equipment and assist in supervising rig operations.
 - b. Ensure that only essential working personnel remain in hazardous areas.
 - c. Ensure that all crewmembers that remain in hazardous area, wear respiratory protective equipment until notified that area is "clear" of any toxic gases.
 - d. Assign a rig crewmember or other service representative to block entrance to location. No unauthorized personnel will be allowed entry to location.
 - e. Help to determine hazardous areas on location using portable detection equipment and position electric fans to circulate air to any high concentration areas.

D. Safety Consultant

1. During normal operations (no H₂S present), the safety consultant will be responsible for doing the following:
 - a. Ensure that all wellsite safety equipment is in place and operational.
 - b. Ensure that all wellsite personnel are familiar with location safety layout and operation of all safety equipment.
 - c. Assist the Wolverine foreman in performing weekly H₂S drills for personnel on location.
2. When an operational condition is classified as extreme danger (H₂S > 10 ppm), the safety consultant will be responsible for the following:
 - a. Account for all wellsite personnel.
 - b. Assess any injuries and administer or direct any necessary first aid.
 - c. Ensure that all safety and monitoring equipment is functioning properly and available where needed.
 - d. Monitor the safety of wellsite personnel
 - e. Maintain a close communication with the Wolverine foreman.
 - f. Be prepared to assist Wolverine foreman with support for rig crew or other personnel using breathing equipment.
 - g. Be prepared to assist Wolverine foreman with emergency procedures including possible well ignition.

E. Drilling Manager

1. The Drilling Manager will be responsible for notifying and maintaining contact with Wolverine Senior Management and other company supervisory personnel.
2. Maintain communication with the Wolverine foreman and be prepared to provide any assistance that might be required.
3. Travel to wellsite if appropriate.
4. Assist Wolverine foreman with all other notifications - both company and regulatory.

II. Well Location Layout

A. Location

1. An attached well site diagram (2 pages) depicts location and rig orientation, prevailing wind direction, terrain of surrounding area, location of briefing areas, access roads (including secondary egress), location of flare lines and pits, location of caution/danger signs, and location of wind indicators.
2. If practical, the drilling rig will be situated on location to allow for the prevailing winds to blow across the rig toward the circulation tanks or at right angles to the lines from the BOP stack to the circulation tanks or as near this configuration as possible. The existing drilling pad where the Providence Federal 24-2 will be drilled will allow the drilling rig to be situated as prescribed.
3. If practical, there will be 2 roads from location with one at each end of location or as dictated by prevailing winds and terrain. If an alternate road is not practical, a clearly marked footpath to a safe area will be provided. The auxiliary escape route will be kept available and passable at all times so that a shift in wind direction will not prevent escape from the location if an emergency should occur.
4. The entrance(s) to the location will be designed to be barricaded if necessary because of a hydrogen sulfide emergency condition.
5. A minimum of 2 safe briefing areas (SBA) will be designated for assembly of personnel during emergency conditions. These will be located at least 150 feet from the wellbore and in such a location that at least one area will be upwind of the well at all times. Upon recognition of an emergency situation, all personnel will be trained to assemble at the designated briefing area for instructions.
6. Smoking areas will be established and smoking will be allowed only at those established smoking areas.
7. Reliable 24-hour telephone communications will be available at the drilling foremen's office.
8. The drilling rig will have a continuous electronic H₂S detection system that will be located to detect the presence of hydrogen sulfide in areas where it is most likely to appear on site. The sensor head locations will be: 1) rig floor by driller's console, 2) substructure area near the bell nipple, 3) the shale shaker, 4) the mud mixing area. Additional sensors will be positioned at the discretion of the drilling foreman. At least 1 light and 1 siren will be placed on the rig to indicate the presence of hydrogen sulfide. The light and siren will be strategically placed to be visible to all personnel on the drill site.
9. Equipment to indicate wind direction will be installed at prominent locations and will be visible at all times during drilling operations. At least 2 wind direction indicators (i.e. windsocks) will be placed at separate elevations (i.e. near ground level and rig floor height). At least 1 wind direction indicator will be clearly visible from all principal working areas at all times so that wind direction can be easily determined. In addition, a wind direction indicator will be provided at each of the

two briefing areas if the other wind direction indicators on location are not visible from the briefing areas.

10. Operational danger or caution sign(s) will be displayed along all controlled accesses to the site. The sign(s) will legible and large enough to be read by all persons entering the wellsite and be placed a minimum of 200 feet but not more than 500 feet from the wellsite and at a location which allows vehicles to turn around at a safe distance prior to reaching the site.
11. Protective safety equipment will be available for all essential personnel. There will be five 30-minute SCBA and five air line breathing units with emergency escape cylinders located at the drilling floor or dog house, one SCBA and air line unit will be located in the derrick (for derrick man), one 30-minute SCBA per person will be located by the quarters of all personnel on location, and 30-minute SCBA and escape units will be distributed as needed near the shaker, mud tanks, and any other area where escape from an H₂S contaminated area could be difficult. A safety trailer containing the compressed breathing air will be located near the well site and air lines will be run from the safety trailer to where the air line breathing units are located.

III. Safety Procedures

A. Training

When this plan is in effect, everyone on the drilling location must be properly trained in hydrogen sulfide safety and carry documentation indicating that the training has occurred within the previous 12 months. There will be a training session that reviews this site specific H₂S plan and the H₂S PPP (if applicable) for all personnel in each work crew on location. Training will also include weekly H₂S and well control drills. All training sessions and drills are to be recorded in the driller's log, as well as in the safety trailer logbook.

Training topics shall include at a minimum:

1. Hazards and characteristics of hydrogen sulfide, nitrogen, and oxygen deficient atmospheres and symptoms of exposure to these gases.
2. Proper use, care and limitations of respiratory protective equipment with hands on practice.
3. Use of both fixed and portable detection toxic gas equipment.
4. Confined space procedures and work practices to reduce possibility of toxic gas exposure.
5. First aid for toxic gas exposure and resuscitation equipment.
6. The buddy system.
7. Emergency evacuation procedures.
8. A review of the contingency plan for this well.

B. Operating Conditions

A three-color flag warning system will be used to notify personnel approaching the drill site as to operating conditions on the wellsite. The flags represent the following:

Green Flag - Potential Danger

Yellow Flag - Moderate Danger

Red Flag - Extreme Danger - Do not approach if red flag is flying.

A red warning flag will be displayed when H₂S is detected in excess of 10 ppm at any detection point.

The operational danger or caution signs located at the entrance to the location will be painted a high visibility red, black and white, or yellow with black lettering. They will be legible and large enough to be read by all persons entering the wellsite and will read "DANGER – POISON GAS – HYDROGEN SULFIDE" and in small lettering "Do not approach if Red Flag is Flying".

All sign(s) and, when appropriate, flag(s) will be visible to all personnel approaching the location under normal lighting and weather conditions.

Location access will be monitored and controlled during "non-routine" operations such as perforating, pressurized pumping, and well testing of potential H₂S bearing formations. The number of personnel on location will be restricted to "essential" personnel only.

C. Warning System Response and Evacuation Plan

When H₂S is detected in excess of 10 ppm at any detection point indicating that an extreme danger condition exists, all non-essential personnel will be moved to a safe area and essential personnel (i.e., those necessary to maintain control of the well) shall wear pressure-demand type protective breathing apparatus. Once accomplished, operations may proceed.

There are no permanent residents or areas frequented by the public within a 1-mile radius of the drill site. The prevailing wind is from the southwest. The Wolverine foreman will contact local authorities to authorize and work in coordination with them to evacuate and restrict non-essential personnel from areas near the wellsite where H₂S concentration levels could potentially exceed 10 ppm. All regulatory agencies will be notified as soon as possible.

D. Emergency Rescue Procedures

Well site personnel should not attempt emergency rescues unless they have been properly trained. A trained person who discovers another person overcome by hydrogen sulfide **should not attempt to rescue without first donning the proper breathing equipment.** When making an emergency rescue always use the following procedures:

1. Don rescue breathing equipment before attempting to rescue someone.
2. Remove the victim from the contaminated area to an area free of toxic gas by traveling upwind or cross wind. Be certain that you are in a safe area before removing your breathing equipment.
3. If the victim is not breathing, initiate mouth-to-mouth resuscitation immediately. Follow CPR guidelines and replace mouth to mouth with a bag mask resuscitator if available.
4. Treat the victim for shock, keeping the victim warm and calm. Never leave the victim alone.
5. Any personnel who experience hydrogen sulfide exposure must be taken to a hospital for examination and their supervisor must be notified of the incident.
6. Their supervisor shall follow the company Emergency Preparedness plan.

IV. H2S Safety Equipment on Drilling Location

<u>Item</u>	<u>Amount</u>	<u>Description</u>
1.	1	Safety trailer with a cascade system of 10-300 cu. ft bottles of compressed breathing air complete with high-pressure regulators.
2.	At least 1000 ft.	Low-pressure airline equipped with Hanson locking fittings. This airline will be rigged up with manifolds to supply breathing air to the rig floor, substructure, derrick, shale shaker area, and mud mixing areas. Three high-pressure refill hoses will be attached to cascade systems for cylinder refill.
3.	Twelve (12)	Scott 30-minute self-contained breathing apparatuses (SCBA).
4.	Twelve (12)	Scott airline units with emergency escape cylinders.
5.	One (1)	4-channel continuous electronic H2S monitors with audible and visual alarms. The set points for these alarms are 10 ppm for the low alarm and 15 ppm for the high alarm.
6.	Two (2)	Sensidyne portable hand operated pump type detection units with tubes for hydrogen sulfide and sulfur dioxide.
7.	One (1)	Oxygen resuscitator with spare oxygen cylinder.
8.	One (1)	Trauma first aid kit.
9.	One (1)	Stokes stretcher and one (1) KED.
10.	Four	Windsocks.
11.	At least one (1)	Well condition sign with 3 flag system.
12.	Two (2)	Safe Briefing Area (SBA) signs.
13.	One (1)	Fire blanket.
14.	One (1)	Set air splints.
15.	Two (2)	Electric explosion proof fans.
16.	One (1)	Bullhorn and chalk board.
17.	Three (3)	300 cu. ft. air bottles for the safe briefing area.
18.	Two (2)	30# fire extinguishers.
19.	Six (6)	Battery powered voice microphones for communication when wearing air masks.
20.	One (1)	Battery powered combustible gas meter.

V. Operating Procedures and Equipment

1. If zones containing in excess of 100 ppm of H₂S gas are encountered while drilling with air, gas, mist, other non-mud circulating mediums for aerated mud, the well will be killed with a water-based mud and mud will be used thereafter as the circulating medium for continued drilling.
2. A flare system will be designed and installed to safely gather and burn H₂S-bearing gas and it will be equipped with a suitable and safe means of ignition. If noncombustible gas is to be flared, the system will have a supplemental fuel to maintain ignition.
3. Flare lines will be located as far from the operating site as feasible and in a manner to compensate for wind changes. The flare line(s) mouth(s) will be located not less than 150 feet from the wellbore. Flare lines will be straight unless targeted with running tees.
4. If SO₂ is to be released as a result of flaring of H₂S, portable SO₂ detection equipment will be available for checking the SO₂ level in the flare impact area. If the flare impact area reaches a sustained ambient threshold level of 2 ppm or greater of SO₂ in air and includes any occupied residence, school, church, park, or place of business, or other area where the public could reasonably be expected to frequent, the PPP will be implemented.
5. The choke manifold included as a component of the well control system will have at least one remote controlled choke with controls readily accessible to the drilling or other authorized personnel.
6. A rotating head will be installed and operable.
7. A mud-gas separator will be rigged up and manifolded to the choke and flare system.
8. The drilling mud will be a water-based system maintained with a pH of 10 or greater. Corrosion inhibitor additives will be in the mud. Sufficient scavenger chemicals will be available on location and will be used to scavenge or neutralize any H₂S in the drilling fluid. Mud weight will be maintained as needed to control pressure in any formations encountered.
9. All equipment that has potential for exposure to H₂S will be suitable for H₂S service. The casing head and spools, blowout preventer assembly, rotating head, kill lines, choke, choke manifold and lines, valves, mud-gas separator and other related equipment will have metallurgical standards conforming to NACE MR0175/ISO 15156. Elastomers, packing, and similar inner parts exposed to H₂S will be resistant at the maximum anticipated temperature of exposure. Drill strings, surface casing, intermediate casing, and BOP shear rams are exempt from these requirements.

10. All respiratory protective, H₂S detection, and other needed safety equipment will be in place and ready for use, and all rig crews and other service personnel will be trained in its use when this plan is effective.
11. There will be a continuous electronic H₂S detection system that will automatically activate visible and audible alarms if hydrogen sulfide is detected. The visible light will activate if 10 ppm H₂S is present. The audible siren will activate if 15 ppm H₂S or higher concentration is present. There will be at least four H₂S sensors in place on the drilling rig. Additional alarm lights & sirens may be added to ensure that all personnel on the drill site are able to notice the alarms at any time. All H₂S detection equipment will be calibrated as recommended by the manufacturer and calibration records will be maintained on location.
12. Both 30-minute self-contained breathing apparatuses (SCBA) and workline units with escape cylinders will be available on location. There will be sufficient numbers of this supplied air breathing equipment on location to ensure that all personnel on location have equipment available to them. All respiratory protective equipment will use nose cups to prevent fogging in temperatures below 32°F. Spectacle kits will be available for personnel that require corrective lenses when working under mask.
13. Electronic voice-microphones will be available for essential personnel to use when working under mask to facilitate communication.
14. Additional breathing equipment will be provided for non routine operations that require additional service personnel on the well location to ensure that all personnel on the well location have a dedicated supplied air respirator.
15. Electric explosion-proof ventilating fans (bug blowers) will be available to provide air movement in enclosed areas where gas might accumulate.
16. Any drill stem test performed on any formation potentially containing H₂S will be done with a minimal number of personnel at the drilling site as necessary to safely operate the test equipment. Any such drill-stem test will be conducted only during daylight hours and will be a closed chamber test with no fluids allowed to flow from surface.
17. Any production testing of an H₂S bearing formation will be done with proper wellhead and other equipment in place to allow a controlled test through separation equipment and flare as needed. Any such test would be conducted with monitoring and warning devices in place and proper safety equipment available.

VI. Well Ignition Procedures

If it should become apparent that an uncontrolled release of hydrogen sulfide to the atmosphere might endanger the health and safety of the public or well site personnel, the Wolverine drilling foreman will make a decision to ignite the well. In the absence of

mitigating circumstances, this should be when the discharge of H₂S is not controllable and continued discharge could expose the public to an H₂S concentration exceeding 10 ppm or well site personnel to an H₂S concentration exceeding 50 ppm. The following procedure should be followed before attempting to ignite the well.

A. Ignition Equipment - The following equipment will be available for on-site for use by the ignition team.

1. Two 12-gauge flare guns with flare shells.
2. Two 500-foot fire-resistant retrieval ropes.
3. One portable combustible gas meter.
4. Self contained breathing apparatus (SCBA) for each member of the ignition team.
5. One backup vehicle with communication equipment.

B. Ignition Procedures:

1. The Wolverine drilling foreman will ensure that well site personnel are evacuated to a safe area upwind of the well bore prior to any ignition action.
2. The Wolverine foreman and a designated partner "buddy" backed up by well site safety personnel will comprise the ignition team. All team members will be wearing 30-minute SCBA's.
3. The backup crew will be positioned near a radio-equipped vehicle at a safe distance from the sour gas release. They will stand by to rescue the actual team igniting the well.
4. The partner of the ignition team will carry a combustible gas/Hydrogen Sulfide meter to continuously monitor the area in which they are working and define the perimeter of the gas cloud.
5. The Wolverine foreman will carry the flare gun and shells.
6. The ignition team will determine the hazardous area and establish safe working perimeters. Once this is identified the team will proceed upwind of the release and fire a flare into the area. If trouble is encountered in trying to light the leak, reattempt to ignite by firing the flare shells at 45° and 90° angles to the gas source, but DO NOT approach closer to the leak.
7. After ignition, monitor for sulfur dioxide and work with the support group to restrict access to the contaminated area.

VII. Residents - Public in Radius of Exposure

There are no permanent residents or paved roads within a 1-mile radius of the well site. Wolverine may have personnel working in the area and their contact numbers will be included. The surrounding area is federally and privately owned and maintained. This land may be used for recreational purposes including hunting and recreational vehicles any time during the drilling or completion of this well.

VIII. Emergency Phone Directory

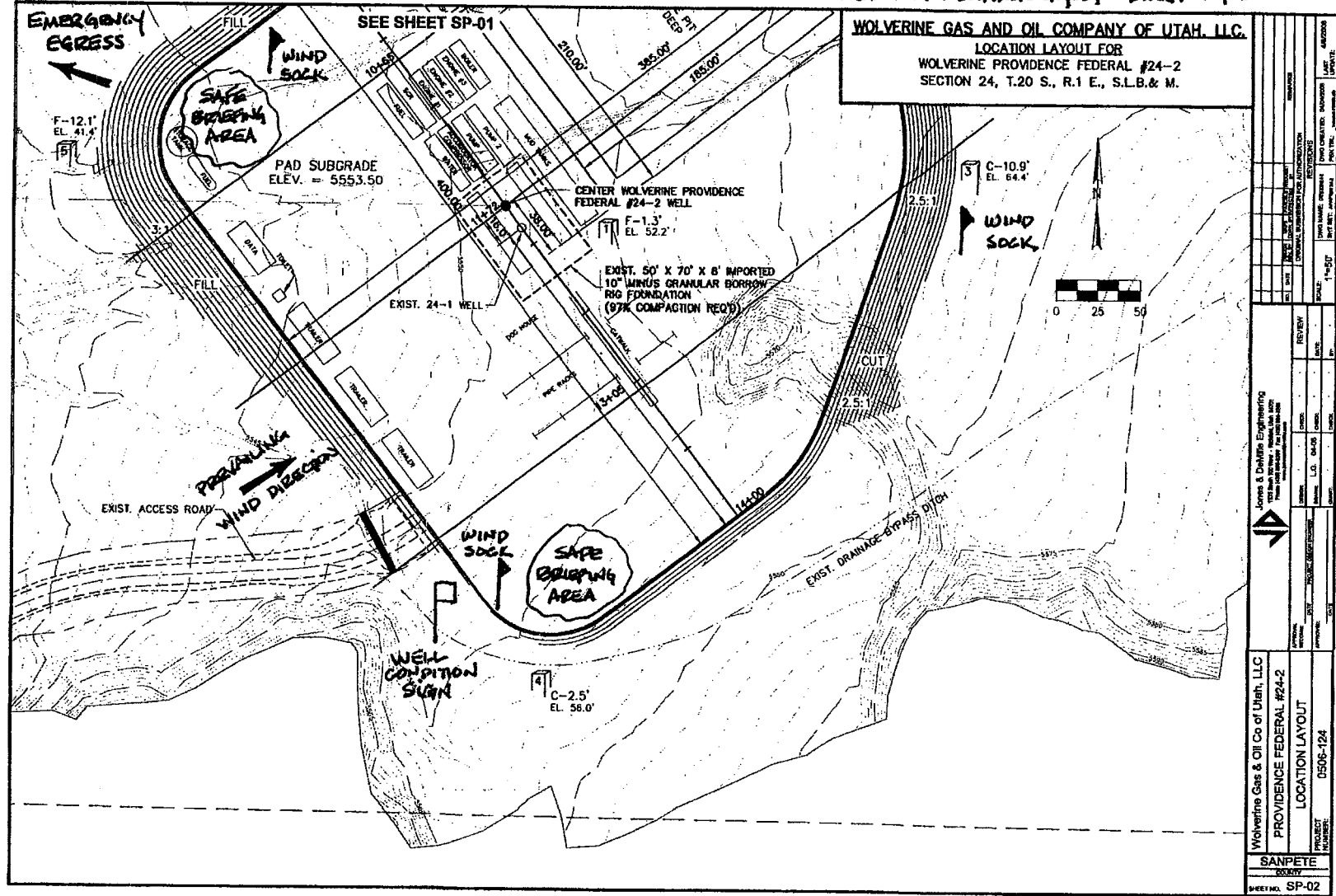
A. Wolverine Gas and Oil Company of Utah, LLC

Steve Hash	(Drilling Mgr – EXACT Engineering, Inc)	office 918-599-9400 cell 918-599-9801
Pete Toups	(Operations Manager – SST Drilling)	office 307-235-3529 cell 307-262-4465
Darren Naylor	(Foreman, On Site Rep – Wolverine)	rig cell 918-645-6671
Ed Higuera	(Operations Manager – Wolverine)	office 616-458-1150

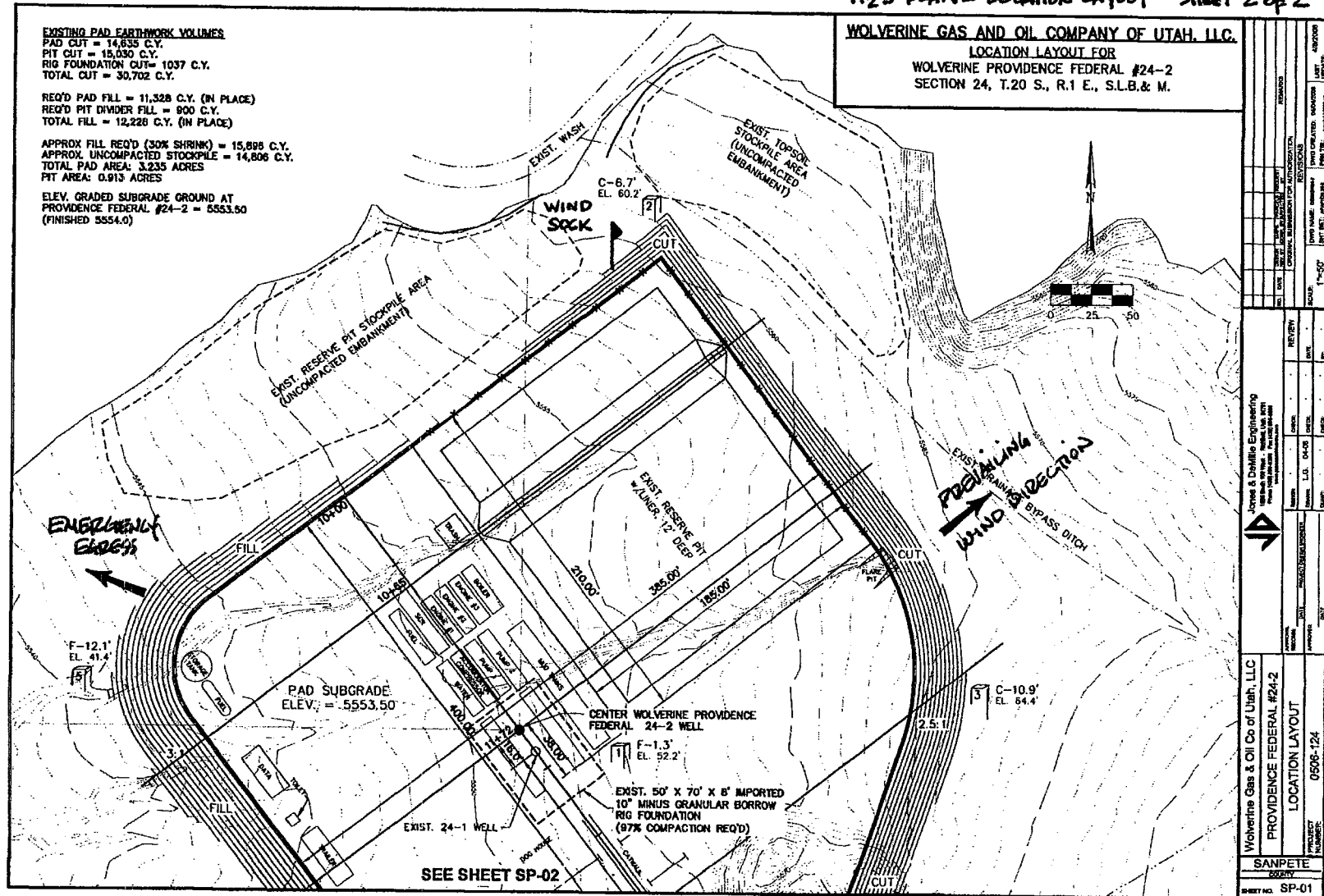
B. Emergency Services Phone List

1. Gunnison Valley Hospital, Sanpete County 435-528-7246
2. Ambulance Services – Sanpete County 911 or 435-835-2191
3. Sheriff Department - Sanpete County 911 or 435-835-2191
4. Highway Patrol - Sanpete County 911 or 435-896-6471
5. Fire Department - Sanpete County 911 or 435-835-2191
6. Al McKee, BLM – Salt Lake City, UT (cell phone) 801-201-7024
7. Utah Division Oil, Gas & Mining - Salt Lake City, UT 801-538-5277
8. Medical Helicopter - Air Med- Salt Lake City, UT 800-453-0120
9. Utah OSHA (Mark LeBlanc) 801-530-6862

H2S PLAN-LOCATION LAYOUT- SHEET 1 OF 2



H2S PLAN - LOCATION LAYOUT - SHEET 2 of 2





ONE-MILE RADIUS PLAT

○ *proposed*
PROVIDENCE FEDERAL 14-2
 Section 24 T20S R1E
 Sanpete County, Utah

(not to scale)
 prep by EXACT Engineering, Inc.
 4/24/08

Wolverine Gas and Oil Company of Utah, LLC
 One Riverfront Plaza, 55 Campau NW
 Grand Rapids, Michigan 49503
 (616) 458-1150

IX. Reference for Hydrogen Sulfide (H₂S) and Sulfur Dioxide (SO₂)

PROPERTY OF GAS

If gas should be produced, it could be a mixture of Carbon Dioxide, Hydrogen Sulfide, and Methane.

TOXICITY OF VARIOUS GASES

<u>Common Name</u>	<u>Chemical Formula</u>	<u>Specific Gravity of Air=1</u>	<u>1 Threshold Limit</u>	<u>2 Hazardous Limit</u>	<u>3 Lethal Concern</u>
Hydrogen Cyanide	HCN	0.94	10 ppm	150 ppm/hr	300 ppm
Hydrogen Sulfide	H ₂ S	1.18	10 ppm	250 ppm/hr	600 ppm
Sulfur Dioxide	SO ₂	2.21	2 ppm	-----	1,000 ppm
Chloride	CL ₁	2.45	1 ppm	4 ppm/hr	1,000 ppm
Carbon Monoxide	CO	0.97	50 ppm	400 ppm/hr	1,000 ppm
Carbon Dioxide	CO ₂	1.52	5,000 ppm	5%	10%
Methane	CH ₄	0.55	90,000 ppm	Combustible Above 5% in Air	-----

1 **Threshold**=Concentration at which it is believed that all workers may repeatedly be exposed, day after day, without adverse side effects.

2 **Hazardous**=Concentration that may cause death.

3 **Lethal**=Concentration that will cause death with short-term exposure.

HYDROGEN SULFIDE

GENERAL PROPERTIES

Hydrogen Sulfide itself is a colorless and transparent gas and is flammable. It is heavier than air and, hence, may accumulate in low places.

Although the slightest presence of H₂S in the air is normally detectable by its Characteristic "Rotten Egg" odor, it is dangerous to rely on the odor as a means of detecting excessive concentrations because the sense of smell is rapidly lost allowing lethal concentrations to be accumulated without warning. The following table indicates the poisonous nature of Hydrogen Sulfide, which is more toxic than Carbon Monoxide.

COMMON NAMES: Sour Gas, Rotten Egg Gas, Sulphurated Hydrogen, Hydrogen sulfide, Stink Damp, H₂S, Acid Gas, Sweet Gas*

PHYSICAL-CHEMICAL PROPERTIES

Chemical Formula..... H₂S

- 1. Specific Gravity (Air = 1.000)..... 1.193 (@ 77°F)**
- 2. Color None**
- 3. Odor..... Compared to Rotten Eggs**
- 4. Odor Threshold 0.13 part of 1 ppm**
- 5. Corrosivity Reacts with metals, plastics, tissues and nerves.**
- 6. Solubility in Water 4.0 to 1 in H₂O @ 32°F
2.6 to 1 in H₂O @ 68°F**
- 7. Effects on Humans Olfactory nerves, respiratory nerves, irritates sensitive membranes in eyes, nose, and throat.**
- 8. Vapor Pressure 19.6 atmospheres at 25°C**
- 9. Explosive Limits 4.3% to 46% by volume in air.**

*** H₂S is a sweet tasting Gas, but often the word "tasting" is left out.**

10. Ignition Temperature.....	18°F (Burns with a pale blue flame)
11. Molecular Weight.....	34.08
12. Conversion Factors.....	1 mg/1 of air = 717 ppm (at 25°C and 760 mm HG). 1 ppm = 0.00139 mg/1 of air.
13. pH.....	3 in water

INDUSTRIAL OCCURRENCES

Hydrogen Sulfide exposures occur in certain processes in the petroleum industry, chemical plants, chemical laboratories, sulfur and gypsum mines, viscose rayon and rubber industries, tanneries, and in the manufacture of some chemicals, dyes, and pigments. It may be encountered in excavations in the swampy or filled ground. It is produced when sulfur-containing organic matter decomposes, and it can therefore be found in sewage or organic-waste treatment plants. A common sewer gas, it may find its way into utility manhole, particularly dangerous when encountered in tanks, vessels, and other enclosed spaces.

TOXIC PROPERTIES

Hydrogen Sulfide is an extremely toxic and irritating gas. Free Hydrogen Sulfide in the blood reduces its oxygen carrying capacity, thereby depressing the nervous system. Sufficiently high concentrations can cause blockage of the phrenic nerve, resulting in immediate collapse and death due to respiratory failure and asphyxiation.

Because Hydrogen Sulfide is oxidized quite rapidly to sulfates in the body, no permanent after effects occur in cases of recovery from acute exposures unless oxygen deprivation of the nervous system is prolonged. However, in cases of acute exposures, there is always the possibility that pulmonary edema may develop. It is also reported that symptoms such as nervousness, dry nonproductive coughing, nausea, headache, and insomnia, lasting up to about 3 days have occurred after acute exposures to Hydrogen Sulfide.

At low concentrations the predominant effect of Hydrogen Sulfide is on the eyes and respiratory tract. Eye irritation, conjunctivitis, pain, lacrimation, keratitis, and photophobia may persist for several days. Respiratory tract symptoms include coughing, painful breathing, and pain in the nose and throat.

There is no evidence that repeated exposures to Hydrogen Sulfide results in accumulative or systemic poisoning. Effects such as eye irritation, respiratory tract irritation, slow pulse rate, lassitude, digestive disturbances, and cold sweats may occur, but these symptoms disappear in a relatively short time after removal from the exposure. Repeated exposures to Hydrogen Sulfide do not appear to cause any increase or decrease in susceptibility to this gas.

The paralytic effect of Hydrogen Sulfide on the olfactory nerve is probably the most significant property of the gas. This paralysis may create a false sense of security. A worker can be

overcome after the typical rotten-egg odor has disappeared. Rather than the characteristic Hydrogen Sulfide odor, some victims of sudden acute overexposure have reported a brief sickeningly sweet odor just prior to unconsciousness.

Subjective olfactory responses to various concentrations of Hydrogen Sulfide have been summarized as follows:

0.02 ppm	No odor
0.13 ppm	Minimal perceptible odor
0.77 ppm	Faint, but readily perceptible odor
4.60 ppm	Easily detectable, moderate odor
27.0 ppm	Strong, unpleasant odor, but not intolerable

Physiological responses to various concentrations of Hydrogen Sulfide have been reported as follows:

10 ppm	Beginning eye irritation
50-100 ppm	Slight conjunctivitis and respiratory tract irritation after 1 hour exposure
100 ppm	Coughing, eye irritation, loss of sense of smell after 2-15 minutes. Altered respiration, pain in the eyes, and drowsiness after 15-30 minutes, followed by throat irritation after 1 hour. Several hours ¹ exposure results in gradual increase in severity of these symptoms and death may occur within the next 48 hours.
200-300 ppm	Marked conjunctivitis and respiratory tract irritation after 1 hour exposure
500-700 ppm	Loss of consciousness and possibly death in 30 minutes.
700 ppm	Rapid unconsciousness, cessation of respiration, and death.
1000-2000 ppm	Unconsciousness at once, with early cessation of respiration and death in a few minutes. Death may occur even if individual is removed to fresh air at once.

ACCEPTABLE CONCENTRATIONS

ACCEPTABLE EIGHT-HOUR TIME-WEIGHTED AVERAGE

To avoid discomfort, the Time-Weighted average concentration of Hydrogen Sulfide Shall not exceed 10 ppm.

ACCEPTABLE CEILING CONCENTRATION

The acceptable concentration for protection of health for an eight-hour, five-day week shall be 20 ppm, Fluctuations are to occur below this concentration.

ACCEPTABLE MAXIMUM FOR PEAKS ABOVE ACCEPTABLE BASE LINE FOR CONTINUOUS EXPOSURE

A single-peak concentration not exceeding 50 ppm for a maximum of 10 minutes is allowable provided that the daily time-weighted average is not exceeded.

H₂S EQUIVALENTS

<u>Parts Per Million</u>	<u>Percents</u>	<u>Grains per 100 cu. Ft.</u>
1	0.0001	0.055
10	0.001	0.55
18	0.0018	1.0
100	0.01	5.5
1000	0.1	55.5
10000	1.0	555.5

Grains per 100 cu. Ft. = % by volume Mole 636.4
1% by volume = 10,000 ppm

SULFUR DIOXIDE

Sulfur Dioxide (SO₂) is a colorless, transparent gas and is non-flammable.

Sulfur Dioxide is produced during the burning of H₂S. Although SO₂ is heavier than air, it will be picked up by a breeze and carried downwind at elevated temperatures, while Sulfur Dioxide is extremely irritating to the eyes and mucous membranes of the upper respiratory tract, it has exceptionally good warning powers in this respect.

CONCENTRATIONS

EFFECTS

<u>%SO₂</u>	<u>ppm</u>
------------------------	------------

.0002	2
-------	---

Safe for eight (8) hour exposure

.0005	5
-------	---

Pungent odor-normally a person can detect SO₂ in this range.

.0012	12
-------	----

Throat irritation, coughing, constriction of the chest, tearing and smarting of the eyes.

.015	150
------	-----

So irritating that it can only be endured for a few minutes.

.05	500
-----	-----

Causes a sense of suffocation, even with the first breath.

PHYSICAL PROPERTIES AND CHARACTERISTICS

Chemical Formula.....SO₂

1. Specific Gravity2.212

2. ColorNone

3. Flammable.....No

4. Odor.....Characteristic, pungent, gives ample warning of its presence.

5. CorrosivityDry---not corrosive to ordinary metals.
Wet---corrosive to most common metals.

6. Allowable Concentrations.....2 ppm (ACGIH)
2 ppm (OSHA)

7. Effects on HumansIrritates eyes, throat and upper Respiratory system.

TOXIC PROPERTIES

Sulfur Dioxide is an irritating gas in its vapor form and the odor is so intensely irritating that concentrations of 3 to 5 parts per million in the air are readily detectable by the normal person. In higher concentrations, the severely irritating effect of the gas makes it unlikely that any person would be able to remain in a Sulfur Dioxide contaminated atmosphere unless they were unconscious or trapped.

Sulfur Dioxide gas is intensely irritating to the eyes, throat, and upper respiratory system. Inhalation of this gas in concentrations of 8 to 12 parts per million in air causes throat irritation, coughing, constriction of the chest, tearing and smarting of the eyes. 150 parts per million is so extremely irritating that it can be endured only for a few minutes. 500 parts per million is so acutely irritating to the upper respiratory tract that it causes a sense of suffocation, even with the first breath.

Out of numerous reported exposures to Sulfur Dioxide, there are few references that would indicate pneumonia as an after effect.

EXISTING PAD EARTHWORK VOLUMES

PAD CUT = 14,635 C.Y.
PIT CUT = 15,030 C.Y.
RIG FOUNDATION CUT = 1037 C.Y.
TOTAL CUT = 30,702 C.Y.

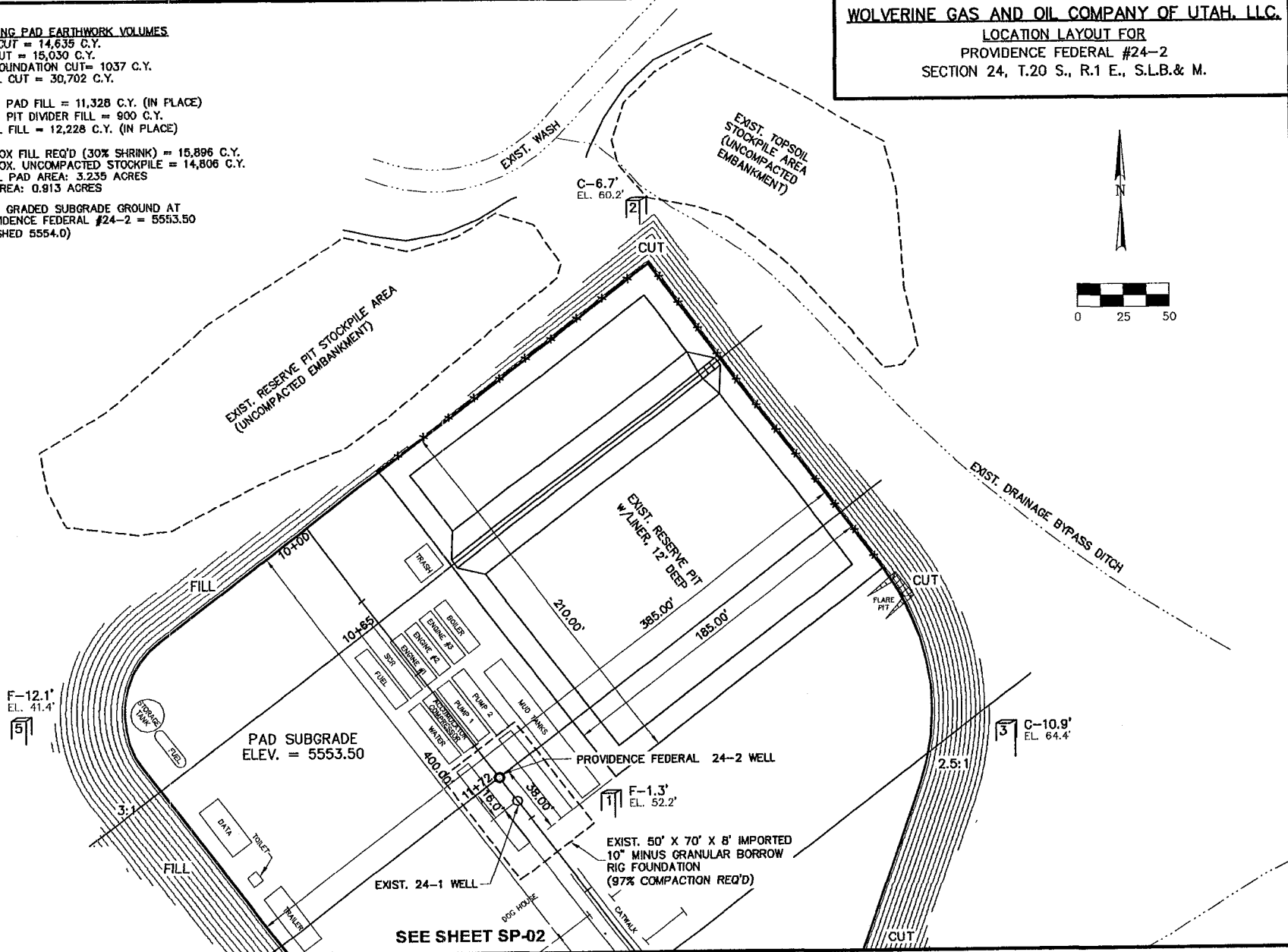
REQ'D PAD FILL = 11,328 C.Y. (IN PLACE)
REQ'D PIT DIVIDER FILL = 900 C.Y.
TOTAL FILL = 12,228 C.Y. (IN PLACE)

APPROX FILL REQ'D (30% SHRINK) = 15,896 C.Y.
APPROX. UNCOMPACTED STOCKPILE = 14,806 C.Y.
TOTAL PAD AREA: 3.235 ACRES
PIT AREA: 0.913 ACRES

ELEV. GRADED SUBGRADE GROUND AT
PROVIDENCE FEDERAL #24-2 = 5553.50
(FINISHED 5554.0)

WOLVERINE GAS AND OIL COMPANY OF UTAH, LLC.

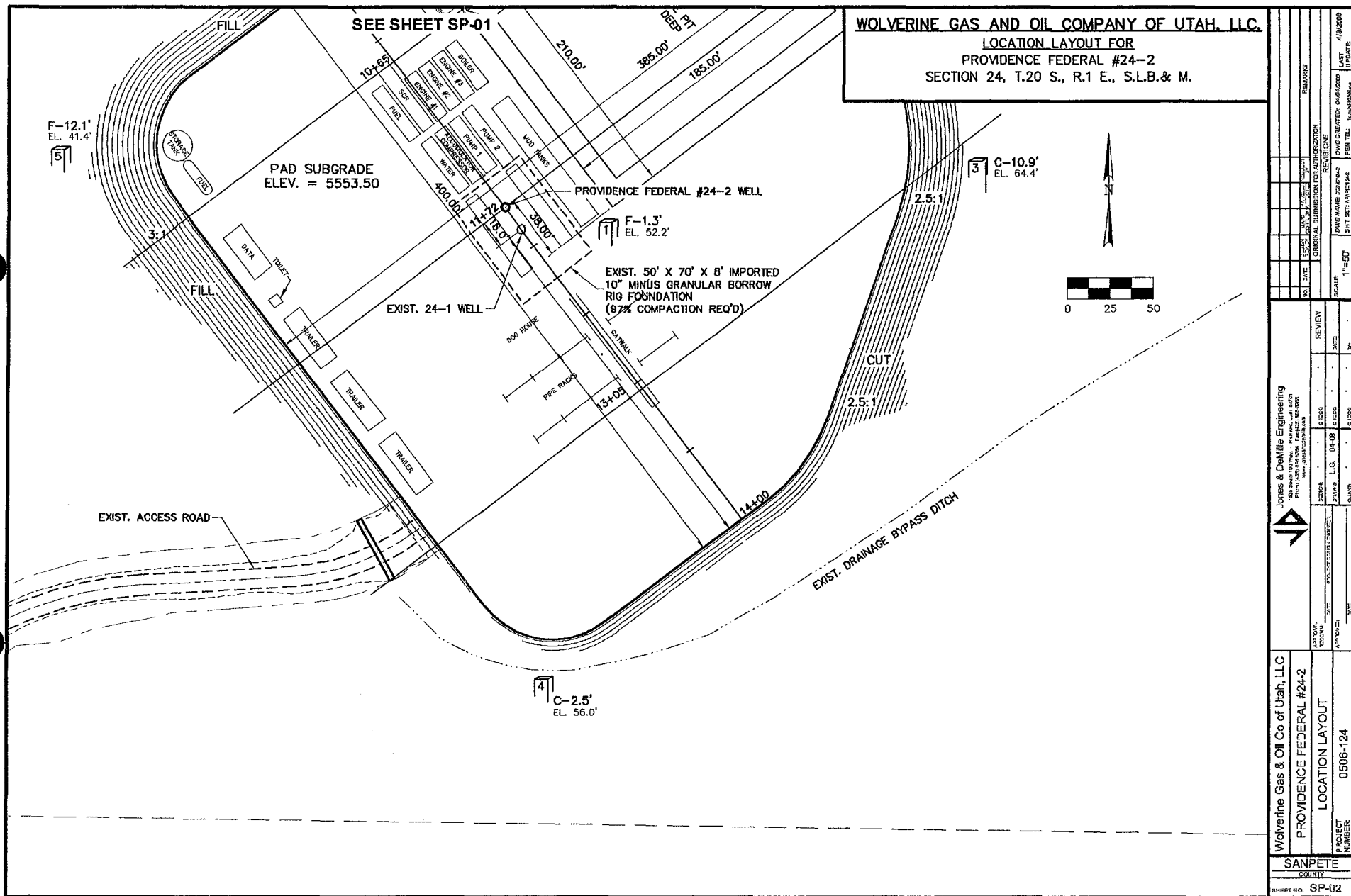
LOCATION LAYOUT FOR
PROVIDENCE FEDERAL #24-2
SECTION 24, T.20 S., R.1 E., S.L.B. & M.



SEE SHEET SP-02

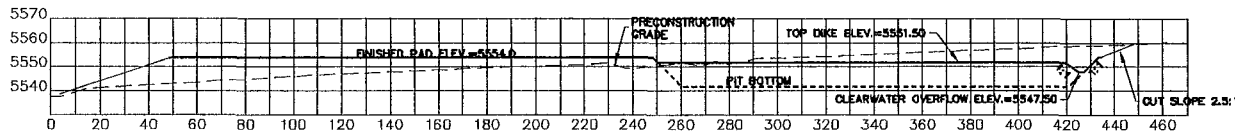
Wolverine Gas & Oil Co of Utah, LLC		PROVIDENCE FEDERAL #24-2		LOCATION LAYOUT		PROJECT NUMBER 0506-124	
SANPETE COUNTY		SHEET NO. SP-01		DATE 4/9/2009		LAST UPDATE	
Jones & DeMille Engineering		REVISIONS		DRAWN BY: JMD		CHECKED BY: JMD	
355 South 100 West, P.O. Box 6021		REVISION		DATE		DATE	
Provo, Utah 84601		REVISION		DATE		DATE	
www.jonesanddemaille.com		REVISION		DATE		DATE	
ORIGINAL SUBMISSION FOR APPROVAL		REVISION		DATE		DATE	
NO. DATE		REVISION		DATE		DATE	
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85 10/1/08		REVISION		DATE		DATE	
86 10/1/08		REVISION		DATE		DATE	
87 10/1/08		REVISION		DATE		DATE	
88 10/1/08		REVISION		DATE		DATE	
89 10/1/08		REVISION		DATE		DATE	
90 10/1/08		REVISION		DATE		DATE	
91 10/1/08		REVISION		DATE		DATE	
92 10/1/08		REVISION		DATE		DATE	
93 10/1/08		REVISION		DATE		DATE	
94 10/1/08		REVISION		DATE		DATE	
95 10/1/08		REVISION		DATE		DATE	
96 10/1/08		REVISION		DATE		DATE	

CONFIDENTIAL

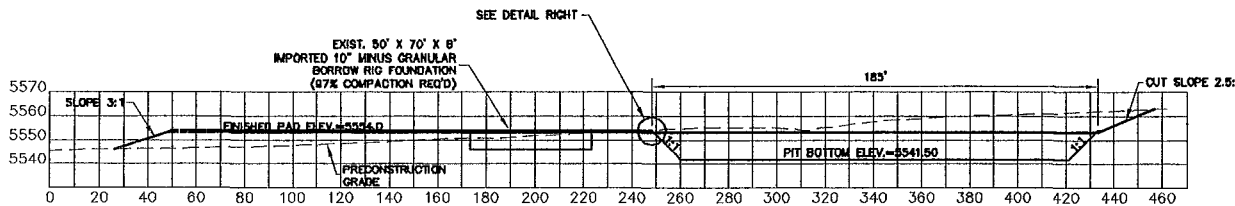


CONFIDENTIAL

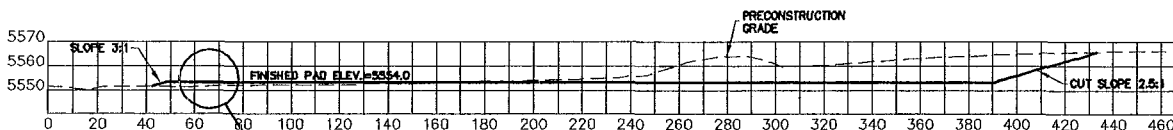
WOLVERINE GAS AND OIL COMPANY OF UTAH, LLC.
EXISTING TYPICAL CROSS SECTIONS FOR
PROVIDENCE FEDERAL #24-2
SECTION 24, T.20 S., R.1 E., S.L.B. & M.



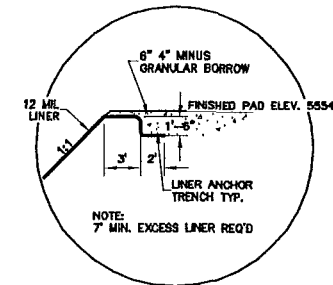
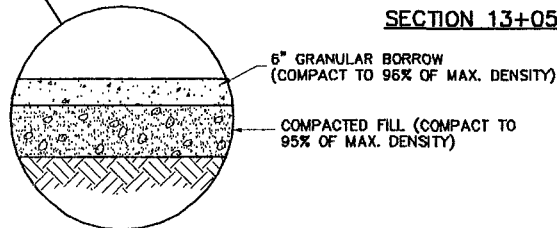
SECTION 10+65



SECTION 11+88

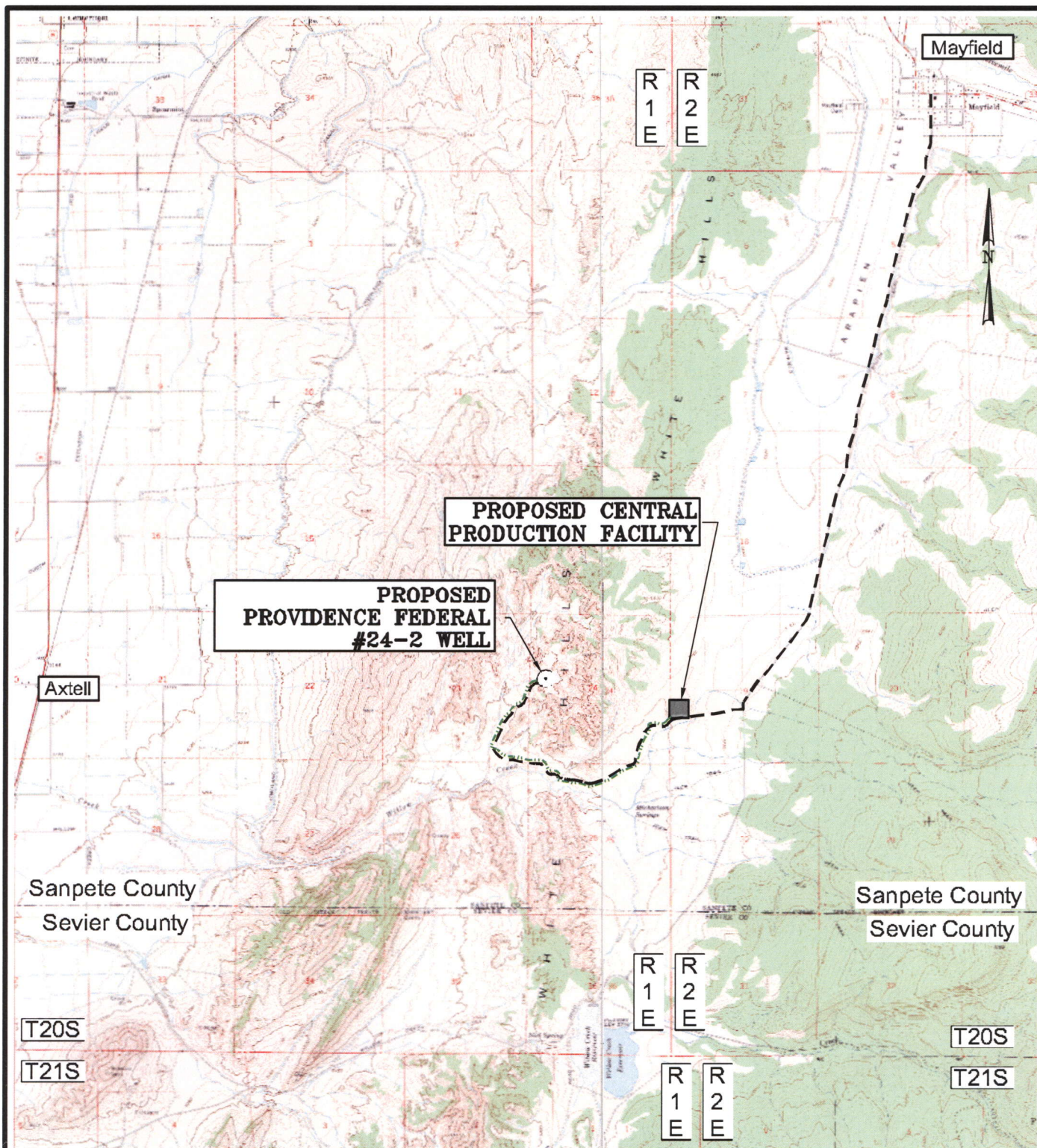


SECTION 13+05



DATE	4/8/2006
REVISIONS	
NO.	1
DATE	4/8/2006
BY	CS-01
CHECKED	CS-01
DESIGNED	CS-01
SCALE	1:50 H&V
PROJECT NAME	PROVIDENCE FEDERAL #24-2
PROJECT NUMBER	0506-124
CROSS SECTIONS	
SANPETE COUNTY	
SHEET NO.	CS-01

Jones & DeMille Engineering
100 South 100 West, Suite 100
Provo, UT 84601
Phone: 801-734-1234
Fax: 801-734-1235
www.jonesanddemic.com



CONFIDENTIAL

LEGEND

- PROPOSED LOCATION
 PROPOSED PRODUCTION LINE CORRIDOR
 EXISTING ROADWAY

Providence Federal #24-2
Section 24, T.20 S., R.1 E., S.L.B. & M.
2318' FNL 539' FWL

Wolverine Gas & Oil Co. of Utah LLC
Providence Federal #24-2

Vicinity Map

SCALE: 1"=5000'	ENG.: D.H.R.	PROJ.#: 0506-124
DATE: 02/21/2006	DWG.BY: L.G. T.G.	DWG.NAME: location24-2



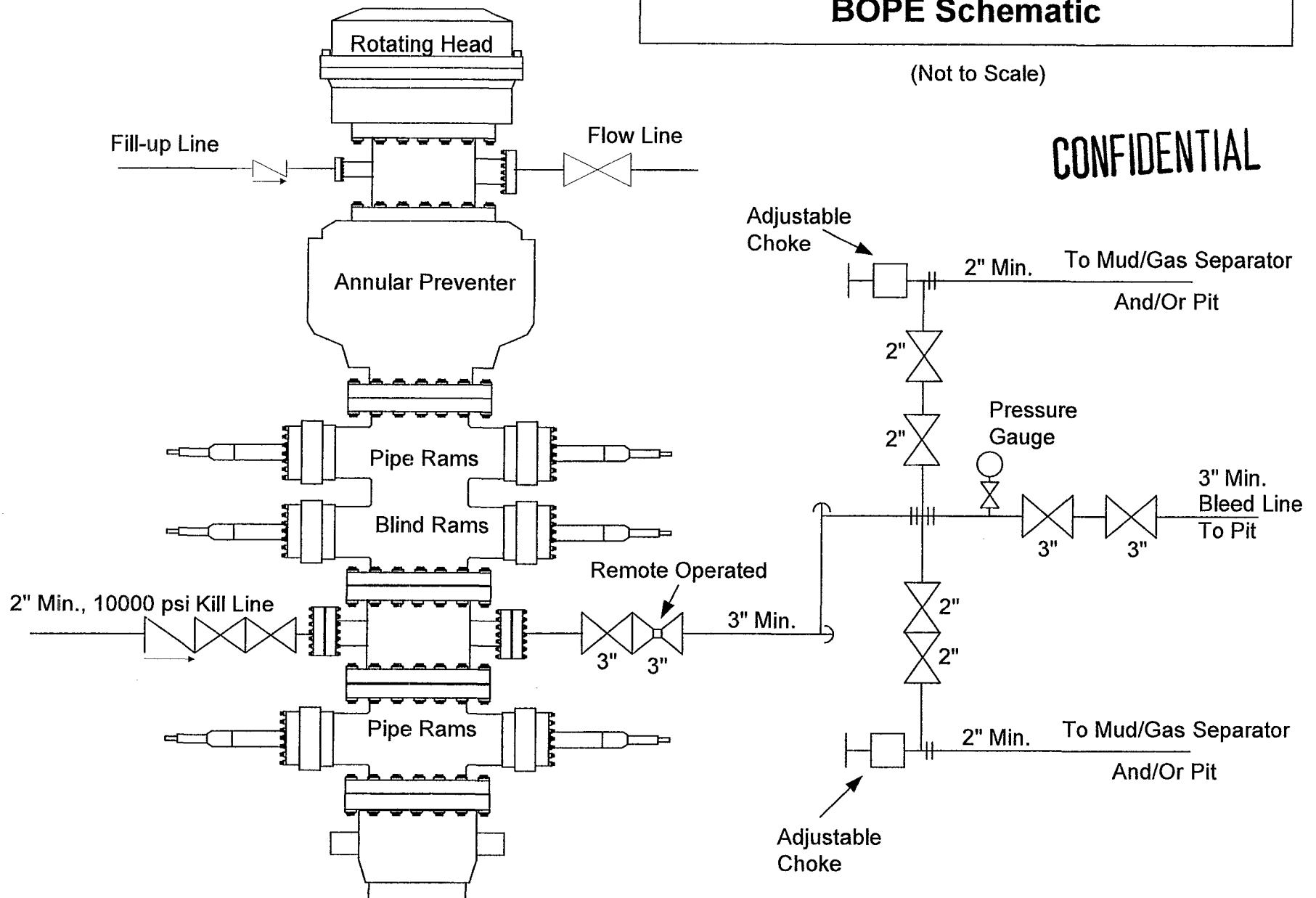
Jones & DeMille Engineering

1535 South 100 West - Richfield, Utah 84701
 (435) 896-8266 Phone
 (435) 896-8268 Fax
www.jonesanddemille.com

Providence Federal 24-2 BOPE Schematic

(Not to Scale)

CONFIDENTIAL



WORKSHEET
APPLICATION FOR PERMIT TO DRILL

APD RECEIVED: 05/08/2008

API NO. ASSIGNED: 43-039-30038

WELL NAME: PROVIDENCE FED 24-2

OPERATOR: WOLVERINE GAS & OIL CO (N1655)

CONTACT: ED HIGUERA

PHONE NUMBER: 616-458-1150

PROPOSED LOCATION:

SWNW 24 200S 010E

SURFACE: 2318 FNL 0539 FWL

NE SW BOTTOM: 2100 FSL 1650 FWL

COUNTY: SANPETE

LATITUDE: 39.05588 LONGITUDE: -111.7576

UTM SURF EASTINGS: 434452 NORTHINGS: 4323042

FIELD NAME: WILDCAT (1)

INSPECT LOCATN BY: / /		
Tech Review	Initials	Date
Engineering		
Geology		
Surface		

LEASE TYPE: 1 - Federal

LEASE NUMBER: UTU-80907

SURFACE OWNER: 1 - Federal

PROPOSED FORMATION: NAVA

COALBED METHANE WELL? NO

RECEIVED AND/OR REVIEWED:

☒ Plat

☒ Bond: Fed[1] Ind[] Sta[] Fee[]
(No. WY3329)

☒ Potash (Y/N)

☒ Oil Shale 190-5 (B) or 190-3 or 190-13

☒ Water Permit
(No. 63-3234)

☒ RDCC Review (Y/N)
(Date:)

☒ Fee Surf Agreement (Y/N)

☒ Intent to Commingle (Y/N)

LOCATION AND SITING:

☐ R649-2-3.

Unit: WOLVERINE *me*

☐ R649-3-2. General

Siting: 460 From Qtr/Qtr & 920' Between Wells

☒ R649-3-3. Exception

☐ Drilling Unit

Board Cause No: _____

Eff Date: _____

Siting: _____

☒ R649-3-11. Directional Drill

COMMENTS:

STIPULATIONS:

1- Federal Approval
2- State Approval

API Number: 4303930038

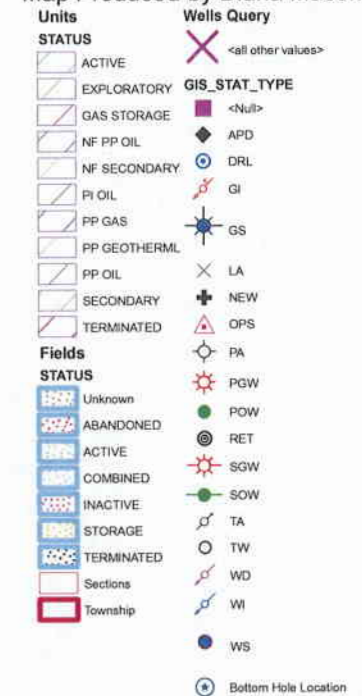
Well Name: PROVIDENCE FED 24-2

Township 20.0 S Range 01.0 E Section 24

Meridian: SLBM

Operator: WOLVERINE GAS & OIL CO UT

Map Prepared: 5/23/2008
Map Produced by Diana Mason



1:12,000
NAD 1927 UTM Zone 12N



JON M. HUNTSMAN, JR.
Governor

GARY R. HERBERT
Lieutenant Governor

State of Utah

DEPARTMENT OF NATURAL RESOURCES

MICHAEL R. STYLER
Executive Director

Division of Oil, Gas and Mining

JOHN R. BAZA
Division Director

June 24, 2008

Wolverine Gas & Oil Company of Utah, LLC
55 Campau NW
Grand Rapids, MI 49503-2616

Re: Providence Federal 24-2 Well, Surface Location 2318' FNL, 539' FWL, SW NW,
Sec. 24, T. 20 South, R. 1 East, Bottom Location 2100' FSL, 1650' FWL, NE SW,
Sec. 24, T. 20 South, R. 1 East, Sanpete County, Utah

Gentlemen:

Pursuant to the provisions and requirements of Utah Code Ann. § 40-6-1 *et seq.*, Utah Administrative Code R649-3-1 *et seq.*, and the attached Conditions of Approval, approval to drill the referenced well is granted.

Appropriate information has been submitted to DOGM and administrative approval of the requested exception location is hereby granted.

This approval shall expire one year from the above date unless substantial and continuous operation is underway, or a request for extension is made prior to the expiration date. The API identification number assigned to this well is 43-039-30038.

Sincerely,

Gil Hunt
Associate Director

pab
Enclosures

cc: Sanpete County Assessor
Bureau of Land Management, Utah State Office

Operator: Wolverine Gas & Oil Company of Utah, LLC
Well Name & Number Providence Federal 24-2
API Number: 43-039-30038
Lease: UTU-80907

Surface Location: SW NW Sec. 24 T. 20 South R. 1 East
Bottom Location: NE SW Sec. 24 T. 20 South R. 1 East

Conditions of Approval

1. General

Compliance with the requirements of Utah Admin. R. 649-1 *et seq.*, the Oil and Gas Conservation General Rules, and the applicable terms and provisions of the approved Application for permit to drill.

2. Notification Requirements

Notify the Division within 24 hours of spudding the well.

- Contact Carol Daniels at (801) 538-5284

Notify the Division prior to commencing operations to plug and abandon the well.

- Contact Dustin Doucet at (801) 538-5281 (801) 733-0983 home

3. Reporting Requirements

All required reports, forms and submittals will be promptly filed with the Division, including but not limited to the Entity Action Form (Form 6), Report of Water Encountered During Drilling (Form 7), Weekly Progress Reports for drilling and completion operations, and Sundry Notices and Reports on Wells requesting approval of change of plans or other operational actions.

4. State approval of this well does not supersede the required federal approval, which must be obtained prior to drilling.

5. In accordance with Utah Admin. R. 649-3-11, Directional Drilling, the operator shall submit a complete angular deviation and directional survey report to the Division within 30 days following completion of the well.

6. This proposed well is located in an area for which drilling units (well spacing patterns) have not been established through an order of the Board of Oil, Gas and Mining (the "Board"). In order to avoid the possibility of waste or injury to correlative rights, the operator is requested, once the well has been drilled, completed, and has produced, to analyze geological and engineering data generated therefrom, as well as any similar data from surrounding areas if available. As soon as is practicable after completion of its analysis, and if the analysis suggests an area larger than the quarter-quarter section upon which the well is located is being drained, the operator is requested to seek an appropriate order from the Board establishing drilling and spacing units in conformance with such analysis by filing a Request for Agency Action with the Board.



JON M. HUNTSMAN, JR.
Governor

GARY R. HERBERT
Lieutenant Governor

State of Utah

DEPARTMENT OF NATURAL RESOURCES

MICHAEL R. STYLER
Executive Director

Division of Oil, Gas and Mining

JOHN R. BAZA
Division Director

August 26, 2009

Wolverine Gas & Oil Co. of Utah, LLC
55 Campau NW
Grand Rapids, MI 49503-2616

Re: APD Rescinded – Providence Fed 24-2, Sec. 24, T. 20S, R. 1E
Sanpete County, Utah API No. 43-039-30038


Ladies and Gentlemen:

The Application for Permit to Drill (APD) for the subject well was approved by the Division of Oil, Gas and Mining (Division) on June 24, 2008.

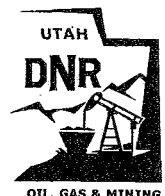
No drilling activity at this location has been reported to the division. Therefore, approval to drill the well is hereby rescinded, effective August 26, 2009. A new APD must be filed with this office for approval prior to the commencement of any future work on the subject location.

If any previously unreported operations have been performed on this well location, it is imperative that you notify the Division immediately.

Sincerely,


Diana Mason
Environmental Scientist

cc: Well File
Bureau of Land Management, Utah State Office





United States Department of the Interior

BUREAU OF LAND MANAGEMENT

Richfield Field Office
150 East 900 North
Richfield, UT 84701
(435) 896-1500 Fax: (435) 896-1550



IN REPLY REFER TO:

3160

June 18, 2010

38
43-039-30⁴⁰

Wolverine Oil and Gas Company of Utah, LLC
55 Campau NW
Grand Rapids, MI 49503-2616

Re: Notice of Expiration
Well No. Providence Federal 24-2
Sec. 24, T20S, R1E
Sanpete County, Utah
Lease No. UTU-80907

The Application for Permit to Drill (APD) the above-referenced well was approved on June 5, 2008. No extension of the original APD was requested. According to our records, no known activity has transpired at the approved location. In view of the foregoing, this office is notifying you that the approval of the referenced application has expired. If you intend to drill at this location in the future, a new Application for Permit to Drill must be submitted.

If you have any questions regarding this matter, please contact me at (435) 896-1532.

Sincerely,

Stan L. Andersen
Supervisory NRS

cc: UDOGM

bcc: Price Field Office
Well File
Reading File

RECEIVED

JUN 21 2010

DIV. OF OIL, GAS & MINING